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The American Artisan
THE HARDWARE RECORD

Volume 45—No. 11. CHICAGO, MARCH 14, 1903. $2.00 Per Year.

Columbus Bolt Works,
Columbus, O.
Bolts,
Nuts,
Washers,
Turn
Buckles,
Bridge and Roof Rods
and
ALL KINDS OF CARRIAGE FORGINGS. ON APPLICATION.
Bolts
CATALOGUE

PURE "SAMPSON" ASPHALT BRAND" ROOFING
Never Dries Out or Cracks. Planet Brand Tarred Ready Roofing, Slaters' Felt, Building Papers, Roofing Cements, Paints, Etc. WRITE US FOR PRICES.
J. L. PERKINS & CO., 235 Lake St., CHICAGO

Never Will Leak . . .

American Seal Elastic Oil cement will not get hard—always stays elastic.

Stops leaks in any roof—old or new, and will wear for years. Fix up the roof now and stop the leakage—in money and roof.

Use it on new work for jointing and 'round your skylights—follow it with a coat of American Seal Roof Paint—the best made—and the top of your house is safe for years. *Prices for the asking.*

THE WM. CONNORS PAINT MFG. CO.,
TROY, NEW YORK.
WESTERN AGENTS Dept. A. { J. L. Perkins & Co., 235 Lake St., Chicago. Stockhoff Supply Co., 432 to 436 S. 12th St., St. Louis.

THIS SPACE FOR SALE
Inquire of Owner
Daniel Stern, 69 Dearborn St.
CHICAGO.

TINNERS FIND EMPLOYMENT
By advertising and using THE POWERS AUTOMATIC CHIMNEY TOPS

They make chimneys draw, give tinners employment making stocks, and give the dealers profit

Sold by Hardware Jobbers and Dealers

Made only by
POWERS BROS.
STREATOR, ILL.

This cut free to dealers.

BURTON'S Fuel Economizer

Attached to a stove pipe saves more fuel and radiates more heat than any other stove pipe attachment.

AN EASY SELLER.

Assertions Backed by Guarantee.

W. J. BURTON & CO.
DETROIT, MICH.

ATLAS BOLT & SCREW CO.
CLEVELAND, O.
We make a full line of
Stove Bolts, Stove Rods,
Machine Screws,
Pointed Pins,
Threaded Wire,
Rivets,

Special Bolts,
Mica Bolts,
Cold Pressed Nuts.

Crying—to—do—business—without—advertising—is—like—winking—at—a—girl—in—the—dark;—you—know—what—you—are doing—but—nobody—else—does.

Black Diamond Files and Rasps.
PERFECT—ALWAYS
Twelve Medals Awarded

At International Expositions.

G. & H. BARNETT CO.,
Black Diamond File Works, PHILADELPHIA, PA.

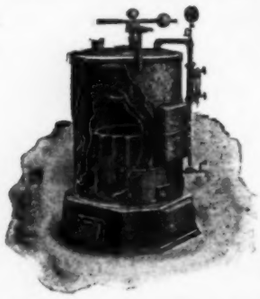
Nicholson File Co.
GENERAL OFFICES: PROVIDENCE, R. I., U.S.A.
Manufacturers of

FILES and RASPS
NICHOLSON, KEARNEY & FOOT, ARCADE, AMERICAN, GREAT WESTERN, McCLELLAN, EAGLE, J. B. SMITH, "X. F." GOLD MEDAL.

GENEVA TOOL CO. Hand Agricultural Tools, GENEVA, OHIO.

The dealer who sells IDEAL Boilers and AMERICAN Radiators can do his level best. The goods help him to do it—and profitably.

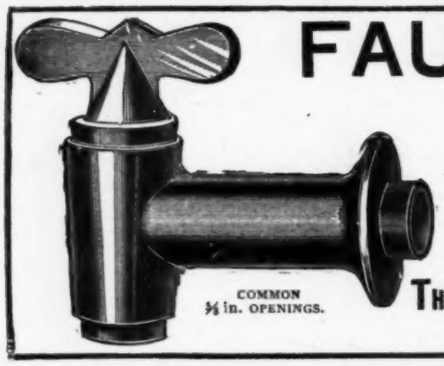
AMERICAN RADIATOR COMPANY
LAKE & DEARBORN STREETS, CHICAGO.
New York. Boston. Philadelphia. Buffalo. St. Louis Minneapolis. Detroit.



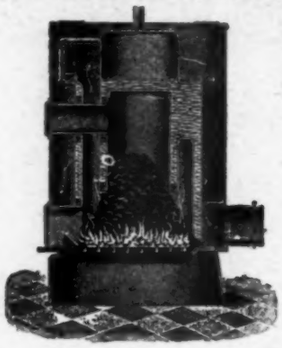
The Columbia
OUR NEW PORTABLE BOILER
for Steam and Hot-Water Heating, is a trade winner. If you have not received our price-list write for it and secure the agency for your city.
VANCE BOILER WORKS, 148 Water Street, Geneva, N. Y.

MAYER & COMPANY
MANUFACTURERS OF
WE USE THE BEST STEEL HAVE THE BEST METHODS OF TEMPERING AND PAY THE HIGHEST WAGES.
DO NOT BE DECEIVED
GOLD MEDAL FILES
BEST ON EARTH
NOT IN THE TRUST
PHILADELPHIA, PA. U.S.A.

"Eagle" Brand Copper Rivets and Burrs
STANDARD FOR QUALITY. (Lake Superior Copper.)
—MANUFACTURED BY—
THE PLUME & ATWOOD MFG. CO.,
29 Murray St., NEW YORK 196 Lake St., CHICAGO, ILL.



FAUCETS.
Beer
Milk Can
Oil Can
Cream Separator,
of Various Sizes and Styles.
MFD. BY
THE CLARK NOVELTY CO.
ROCHESTER, N. Y.
COMMON ⅝ in. OPENINGS.



"Defender" (Steel) Boiler
For Steam and Hot Water Heating Surface Burner. For Soft and Hard Coal. Portable and Brickset.
Kewanee Boiler Company, Kewanee, Ill.
167 E. LAKE ST., CHICAGO.

"THE ILLINOIS"
Sold in Every State
Have Stood the Test of Years.

METALLIC SKYLIGHTS
Made in 10 Styles and 500 sizes.
"THE ILLINOIS" are the best skylights made. We also manufacture Cornices, Finials, etc. Send for handsome illustrated catalogue. Ribbed skylight glass furnished at very lowest prices.
J. H. JONES, Mfr.,
Lock Box 33 STREATOR, ILL.

M. TRAVILLA,
QUINCY, ILL.,
MANUFACTURER
"Air-Tight" Stoves
ASK FOR PRICES.

Wellsville Polished Steel
"THE VERY BEST."

"ROME"
NICKEL PLATED COPPER WARE
Tea Kettles, Range Kettles, Tea and Coffee Pots, Wash Boilers, Etc.
ROME MANUFACTURING COMPANY, ROME, N. Y.
WRITE US FOR PRICES. Address Department A.

THE "STANDARD" WICKLESS BLUE FLAME

For Coal or Gasoline.

Lights Quicker and Burns Better than any other Wickless Stove.

Five years of success without change in construction, and remains in popular favor.

The "STANDARD" Wickless is simple in construction, and will do all kinds of kitchen work perfectly and economically.

SOLD BY THE FOLLOWING JOBBERS:

F. M. BORDEN & BRO., Philadelphia, Pa.

A. L. CANFIELD, 284 Pearl Street, N. Y. City.

THE S. M. HOWES CO., Boston, Mass.

W. B. BELKNAP & CO., Louisville, Ky.

F. TIEMANN STOVE & HARDWARE CO., St. Louis, Mo.

TOWNLEY STOVE CO., Terra Haute, Ind.

FARWELL, OZMUN, KIRK & CO., St. Paul, Minn.

HOLBROOK, MERRILL & STETSON, San Francisco, Cal.

TOWNLEY METAL & HARDWARE CO., Kansas City, Mo.

BARTLETT & NORRIS, Lincoln, Neb.

LOGAN-GREGG HARDWARE CO., Pittsburgh, Pa.

MORLEY BROS., Saginaw, Mich.

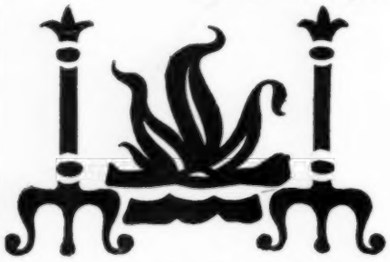
Orders direct to us will have prompt attention.

AMERICAN STOVE CO.

THE STANDARD LIGHTING DIVISION

CLEVELAND, OHIO.

"Art is the expression of Man's joy in his work."—Elbert Hubbard.



"There are men who do their work so masterly and well that they monopolize things in their line."

We believe the above to be descriptive of our

GRATE DEPARTMENT.

Whenever the best things in fire-place fittings are sought for, or demanded, the order usually comes to us. The more exacting the specifications the more surely the order will be filled with our goods.

Every design for a

Columbian or Peerless Grate

had its origin in the mind of an Artist. Some of these Artists are world-famed for their productions with brush or chisel. Our Mechanical Department gives a guiding hand in the Constructive Work, thus insuring that their perfect operation will add to the Enjoyment of their Artistic Beauty, producing the Harmony of Mind which promotes Appreciation and Happiness.

MADE ONLY BY

The Pittsburgh Stove and Range Co.

PITTSBURGH, PA.

Illustrated Catalogues upon request.

SUN STOVES

Acknowledged Unequal and Court Competition.

Gasoline, Oil and Gas Stoves, Ovens and Oil Heaters, Hot Blast, Smoke Consuming, Coal Heaters, Air-Tight Heaters for Wood, Gasoline Torches and Lamps.

THE PEERLESS SUN GASOLINE STOVES

Are Odorless, Unique, Easy to Light, Safety Double Tanks and Warming Closet.

OUR JUNIOR GASOLINE STOVES

Have a Two-Valve, All-Brass Burner—the very BEST on the market. Works perfect.

THE SUN STOVE CO. DETROIT, MICHIGAN.

PITTSBURGH STOVE & RANGE CO.

GENERAL OFFICES AND WARE-HOUSES
ROBINSON & DARRAGH STS.
ALLEGHENY, PA.

PITTSBURGH, PA. Feb. 23rd, 1903.

The American Artisan,

Chicago, Ill.

Gentlemen:-

We herewith enclose you copy of our contract for one half page advertisement in your paper for the coming year. We wish to say in this connection, we had unusually good results from our Ad. in the American Artisan during the past year, and think it one of the best advertising mediums for our line.

Yours very truly,

PITTSBURGH STOVE & RANGE COMPANY,

H W Baldwin
SALES MANAGER.

THE

GEM-MILLER
STEEL-PLATE
RANGE

Which we introduce
as a High-Grade
Medium-Priced
Cooking Apparatus
is made only by

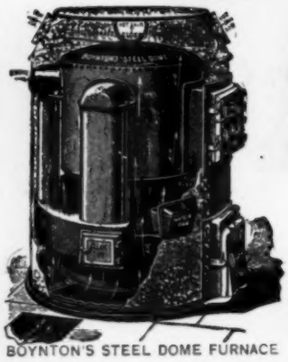
THE WM. MILLER RANGE & FURNACE CO.

Write for Catalogue and Prices. CINCINNATI, OHIO.

1903

THE ONLY GENUINE

BOYNTON
Heaters



BOYNTON'S STEEL DOME FURNACE

FURNACES, COMBINATION, HOT
WATER AND STEAM.
ALWAYS UP-TO-DATE.

Reliable, Economical, Best Known, Easiest Handled. A Postal Will Bring Full and Definite Information.

The Boynton Furnace Co.,
207-209 Water St., New York
147-149 Lake St., Chicago

1903

An "A+AA+I"

Malleable

STEEL RANGE

THE FAULTLESS.

Newer, Smoother and more Malleable THAN OTHERS.

Faultless Mfg. Co., 617 Austin Ave., Chicago.

Champion Stove Clay

The only Stove Lining made of crucible materials.
Packed in 2½ lb., 6 lb. and 10 lb. pasteboard boxes and also in bulk.
Order it from your jobber.
The best and most refractory lining made.

Bridgeport Crucible Co.
BRIDGEPORT, CONN.

A PAYING INVESTMENT

The amount of Fuel saved by using

MUELLER

Furnaces and Boilers

Brings good returns on the investment.

POWERFUL
DURABLE
ECONOMICAL

Made in All Styles for All Kinds of Fuel

Get Our Catalogue and Prices.

FOR HARD OR SOFT COAL.

STEAM BOILER.

EVERYTHING IN THE HEATING LINE

Established 1857

L. J. MUELLER FURNACE CO.

191 REED STREET MILWAUKEE, WIS.

Moore's Stoves Always Please

Only Range with Hinged Cover Plate

The handy way to broil, toast or fix the fire.
MOORE'S STEEL RANGE has Oven Thermometer, Automatic Controlling Damper, and every facility for Cooking with ease and certainty. It's the easy line to sell.

Joliet Stove Works, Joliet, Ill.

QUAKER STEEL FURNACES

are air-tight, base burners, have hot-air blast automatic puff damper (safety valve). We also make the ***QUAKER*** all cast or with steel radiator, ***QUAKER*** wall registers, time regulators, water heaters for combination warm air and hot water.

NEW PLANT—NEW PATTERNS.

QUAKER MANUFACTURING CO. CHICAGO HEIGHTS ILLINOIS.

THE CLEAR PATENT CONVEX CLEANABLE REGISTER

REGISTER OPEN

No experiment. Tens of thousands in use, and demand increasing daily.

The **best, handsomest** and **cheapest** register ever invented.

Efficiency, economy, durability and **simplicity** mark their superiority.

No bolts, screws, nails nor carpentry or woodwork used in construction or installing. Oxidized Copper and Japanned gold and silver striped always in stock. Write for catalog and discount.

CHAS. CLEAR,
PATENTEE,
U. S. and Canada Office:
BROADWAY and La SALLE ST., St. Louis, Mo.
U. S. A.

REGISTER CLOSED

"The Goods Themselves"

Are an unanswerable argument for the dealer to use in securing orders for

Champion & Marquart Steel Ranges

They possess every feature of genuine merit known to modern steel range construction and have one feature found in no other range on the market in the shape of an additional flue, which is below the main heating flue, and conducts the air through the ash pit to the combustion chamber.

Champion Steel Range Company

CLEVELAND, OHIO.

The New Schill Range!

The Most Modern and Up-to-Date Range Made To-day

Possessing several special and novel features not found in any other line. It must be seen to be appreciated.

THE above cut shows range with flush reservoir and high closet, and front or pouch feed, also draft door below pouch feed which can be opened to light fire, which is a most desirable feature. Another very desirable feature is our reservoir casing which is cast iron, and front of same is covered with sheet steel thus giving it the appearance of a steel front, saving labor in blacking. Right end of reservoir casing is handsomely ornamented. It has spring balance oven door, ventilated oven, extra large ash pan, screw draft plate, very handsomely nickeled and is decidedly the latest in stove construction.

THE SCHILL BROS. CO., Crestline, O.

The Nelson & Bouquet Hardware Co., Minneapolis, Minn., Northwest'n Agts.
J. C. Shanks, 1547 Wazee Sreet, Denver, Colo.
H. A. Potter, 35 New Montgomery Street, San Francisco, Cal.
Chas. H. Greene, 5085 Fairmount Avenue, St. Louis, Mo.

THE BOSS OVEN

For Gasoline, Gas or Oil Stoves

Unequaled for Durability, Baking Qualities and Appearance.

Manufactured by E. H. HUENEFELD 221-223-225-227 E. Ninth Street, Cincinnati, Ohio

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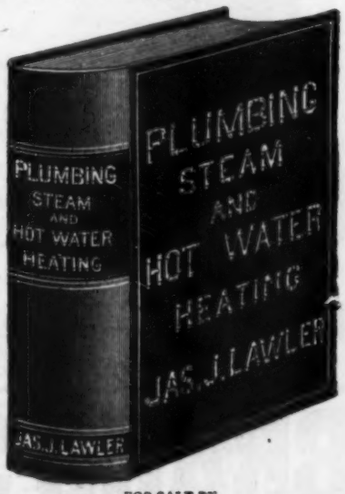
Modern Sanitary Plumbing

Steam and Hot Water Heating

An Encyclopedia of Practical Plumbing. By JAMES J. LAWLER. 400 pages, large octavo. Size 6x9 inches. Price **$5.00.**



FOR SALE BY
DANIEL STERN,
99 Dearborn Street. CHICAGO

Crown Furnace

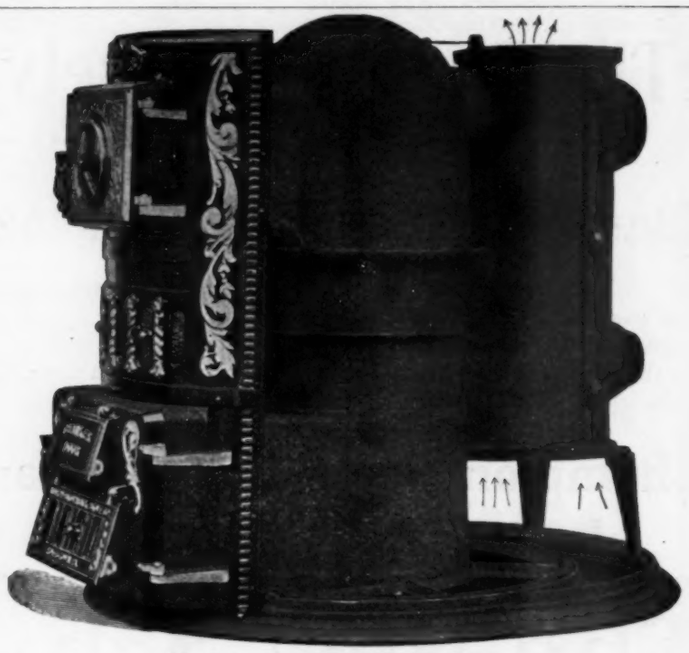
LOW DOWN TYPE.
MADE IN 4 SIZES.

It has an extremely large amount of radiation for the size of the fire pot used. This furnace can be cleaned with the greatest facility.

It is made with smoke collar attachment and gas-burning arrangement when soft coal is used.

The furnace throughout is made extremely heavy and will stand severe usage.

March-Brownback Stove Co.
POTTSTOWN, PA.



The Crown Low Down Warm Air Furnace.

The Improved Hero

Is the Best for a COLD CLIMATE

Deep Ash-Pit. Each Grate-Bar Shakes Separately.
No Cog-Wheels or Bolts Attached to Grate.

We make the Little Giant Hot Water Attachment.
Uneedit. Write us about it.

Chas. Smith Company

122 Lake Street, CHICAGO

The Torrid Zone Furnace

will make you more money than many others.

First, because it gives your customer satisfaction.

Second, it is easily set up and cased.

Third, it has points of merit that others do not have to point out to the customer.

Fourth, the price is right. We give you your choice between a castiron and brick lining at the same price.

Write for catalogue and prices on Hot Air Furnaces and Combination Heaters.

Lennox Manufacturing Company,
Cor. 9th Ave. & Frederick St., MARSHALLTOWN, IOWA.

SPONS' MECHANICS' OWN BOOK.

A Manual for Handicraftsmen and Amateurs, Treating of Mechanical Drawing, Casting and Founding, Forging, Soldering, Sheet Metal Working, Carpentry, Cabinet Making, Painting, Gilding, Polishing, Turning, Masonry, Roofing, Gas Fitting, Ventilating, Warming, Lighting, Mechanical Movements, etc., etc. 700 pages, 1,400 illustrations. Price, $2.50.

For Sale by
DANIEL STERN,
69 Dearborn Street
CHICAGO.

BRAND STOVE CO.

We make largest line of cooking and heating apparatus, cast cooks, cast ranges, steel cooks, steel ranges, hotel outfits, heating stoves, furnaces, hot water and steam heaters. Send for catalogue.
MILWAUKEE, WIS.

Can you afford

Mr. Dealer, to risk your business reputation by recommending cheap, inferior and unsatisfactory furnaces? Particularly as such a course is entirely unnecessary when you can secure an agency for

Floral City Furnaces

which are made with perfect castings by skilled workmen under careful supervision.

Monroe Foundry & Furnace Co.
Monroe, Mich.

Weir Gas and Soot Consuming Furnace.

Weir ALL STEEL GAS AND SOOT CONSUMING Furnace

The Heaviest Steel Furnace Made.

Absolutely gas and dust tight.
A great heat producer, but a fuel saver.

MADE IN TWELVE SIZES.

"The Handy Furnace Pipe"

The saving of labor in putting it up really makes it the cheapest hot air pipe on the market.

MANUFACTURED BY

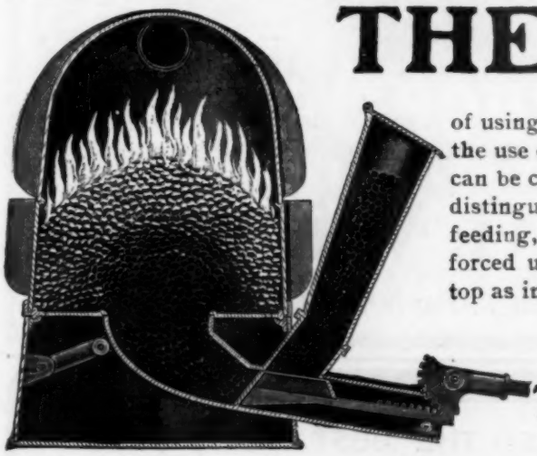
Meyer Furnace Co.
PEORIA, ILL.

SEND FOR CATALOGUE.

Is Absolutely Safe

Handy Pipe.

THE PROBLEM



of using soft coal in furnace heating is successfully solved by the use of the **Underfeed Furnace** which gives a fire that can be compared very favorably with that of hard coal. The distinguishing feature of the furnace lies in the fact that in feeding, the coal is placed in a hopper at the side and is then forced up **underneath** the fire, instead of being thrown on top as in other furnaces.

Write for Circulars.

THE WESTERN FURNACE & FOUNDRY CO., 1218 Harney St., Omaha, Neb.

E. J. KETCHUM, West Duluth, Minn., writes:

Please discontinue my advertisement for help, as I have engaged a man and have too many inquiries.

FURNACE

Casing Rings are, usually, considered an unimportant detail. Every

MANUFACTURER'S

Cost-book should show them, in proportion, the most expensive castings item.

COST

is not the only bad feature. For instance, the patterns occupy moulding space that might be used to better advantage, and on more profitable work. We have designed and perfected a ring, made of soft steel, which has

REDUCED

our cost of production beyond anticipation, and is correct in practice. **Write us at once. We can quote prices that will convince.**

The
Walworth Run Foundry Company
Cleveland, Ohio

EMPEROR FURNACES

For Wood

SIMPLE SAFE DURABLE

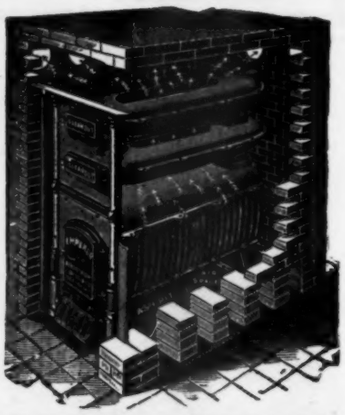
The Best and Cheapest Line of Wood Furnaces

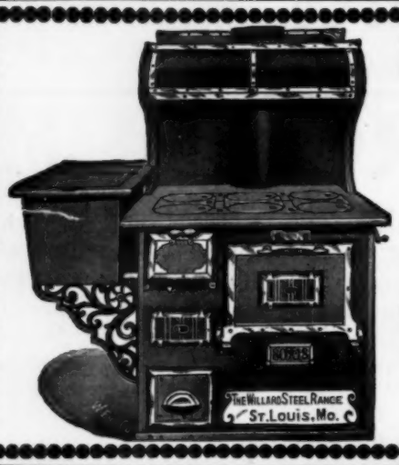
FURNISHED FOR EITHER BRICK OR GALVANIZED IRON CASING.

Send for Catalogue.

Bergstrom Bros. Co.

NEENAH, WIS.





The Willard Steel Range

combines LOW PRICE
and HIGH QUALITY.

Dealers who handle it control the steel range trade of their locality. Why not write us for Agency?

Wm. G. Willard, Mfr.

619-621 N. Fourth St., ST. LOUIS.

STOVE MAKERS NEED THE BEST.

EVERYTHING FOR POLISHERS AND PLATERS

(EXCEPT MACHINERY.)

Here is a partial list; make a selection to fill your needs, and get my prices. You will find them all right.

TRIPOLI COMPOSITION, (All grades)
ENGLISH ROUGE, (No. 10)
SILVER FINISH (in cans) no slacking

CROCUS COMPOSITION, (No. 5 English is the one you want)
STEEL POLISH, (No. 50)
WHITE COLUMBIA ROUGE

TURKISH EMERY and EMERY CAKE

EVERYTHING for POLISHERS and PLATERS.

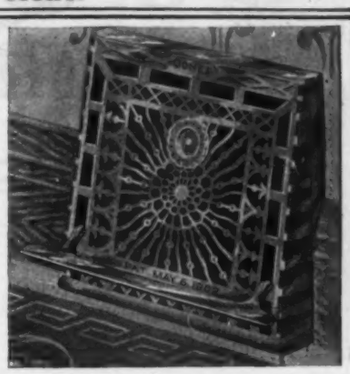
F. B. STEVENS, Maker of the Best, DETROIT, MICH.

GILT EDGE FURNACES

THE MOST COMPLETE LINE MANUFACTURED FOR ALL KINDS OF FUEL. DURABLE, ECONOMICAL, GAS TIGHT.

***The* Jones Side-Wall Register . . . . . .**

The only register having full capacity of hot air pipe for large living rooms or for heating a room on the first floor and extension to second. Has a face of neat design and not a hole in the wall when open. Has a regulator that holds the damper permanently in position. Can not get out of order. Double safety box included in each register.



Send us sketch for plans of latest method of heating with *GILT EDGE FURNACES* and *JONES REGISTERS*, least work, least pipes, least waste of heat, most economical.

R. J. SCHWAB & SONS COMPANY,

Manufacturers of Gilt Edge Furnaces and Northwestern Distributors of Jones Side-Wall Registers.

MILWAUKEE, WIS.

Royal Heaters.

MANUFACTURED BY THE

HART & CROUSE CO.

UTICA, N.Y.

ALL THE LEADING LINES OF

STEAM, HOT WATER & HOT AIR,

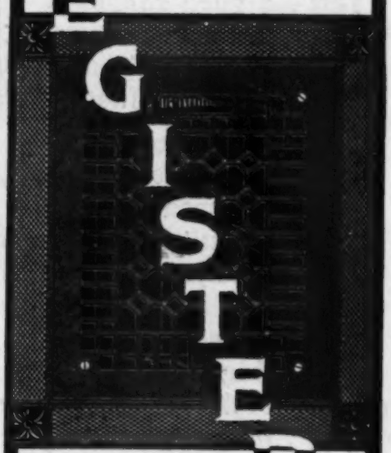
FOR HEATING ALL CLASSES OF BUILDING.

235 WATER ST. N.Y. COLUMBUS. O. BRANCHES. 29 LAKE ST. CHICAGO. ST. LOUIS.

REGISTERS.

WE MAKE RIGHT PRICES AND PROMPT SHIPMENTS

All Sizes—All Styles of Finish. Quality and Finish Unexcelled



HENRY & SCHEIBLE CO.

6-8-10 Long Street, CLEVELAND, O.

TO OPEN, PUSH INWARD

SYMONDS WALL REGISTER

Is the Simpliest, Cheapest, Strongest, Most Practical, Quickest installed, Lightest for Shipment, Best Designed. No register like it without infringing. Don't you want to make money? Write for circular and sample. Orders shipped same day received.

SYMONDS MFG. CO., EAST ST. LOUIS, ILL.

TO CLOSE, PUSH DOWN

ROUND OAK
STANDARD of AMERICA

What did the Lady say?

She said:

"Here's the money for the ROUND OAK steel range. It's a good deal better than you said it was. When I saw the name, ROUND OAK, I knew it was a good range."

Our customer who writes us the above says:

"It's a good name and a good range and lots more are going into the neighborhood where this first one was sold."

If you are a Dealer who earnestly enjoys getting hold of a good specialty and stirring up your community (and your competition) with a good strong push and getting quite a bit more than your share of the business—here's the good steel range with the best of names behind it, ROUND OAK.

Beautiful steel range booklet, finest ever published, sent upon request.

Estate of P. D. Beckwith

Dowagiac, Mich.

Makers of Good Goods Only

37

ESTABLISHED 1880.

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

Terms of Subscription in the United States, their Possessions, and Canada, (invariably in advance): One Year, Postage Paid, $2.00.
In Foreign Countries, Except Canada, One Year, Postage Paid, $4.00.

Address all Letters, communications and remittances to

DANIEL STERN, Publisher and Proprietor,
69 DEARBORN STREET, CHICAGO, ILL.

Entered at the Chicago Post Office as Second Class Matter.
This Paper is a Member of the Chicago Trade Press Association.

CHICAGO, MARCH 14, 1903.

A PROMINENT credit man in writing on the subject of credits says: "As long as dishonest men are almost safe in victimizing honest merchants no system of reporting will improve matters very greatly. Make laws which will enable us to punish men who make false statements as easily as we can now punish ordinary theft and you will have taken a great step toward diminishing losses."

A STATEMENT issued by the Postoffice Department March 10 shows that the receipts of the 50 largest offices for February were $4,978,710, as compared with $4,429,806 in the same month of 1902, an increase of $554,124, or 12.3 per cent. The receipts of the New York office last month were $1,023,039, against $909,313 for February of last year, a gain of $113,726, or 12.5 per cent. Chicago gained $106,895, or 15.3 per cent.

THE DEVELOPMENT of commercial relations between Porto Rico and the United States since the transfer of that island to the control of this country has been phenomenal. The people of Porto Rico now find a market in the United States for five times as much of their products as they did in 1897, the year preceding that transfer; and the people of the United States find a market in Porto Rico for more than five times as much of their products as in 1897. Some figures just compiled by the Treasury Bureau of Statistics covering the commerce between the United States and Porto Rico in the calendar year 1902 and compared with the figures of preceding years fully sustain this assertion. They show that the value of merchandise shipped from Porto Rico to the United States in 1902 was $9,634,176, against $1,943,251 in 1897; and that the value of merchandise shipped from the United States to Porto Rico in 1902 was $12,195,297, against $2,023,751 in 1897.

Business Training.

THE conditions of success in business have become so complex and exacting that those who intend to enter it need a special training. The reasons for this are plain. Markets are no longer local, the competitors of producers and traders are no longer their neighbors. The success of the cotton manufacturer of New England depends partly on his knowledge of conditions in India or China. The corn grower and the live-stock breeder of Illinois must compete with those of Argentina. The merchant must have a wide knowledge of conditions of production, transportation and markets, the world over. In each case the individual needs not only the technical physical knowledge necessary to carry on his particular line of work, but a technical economic knowledge that will enable him to meet the conditions of competition; he must know the physical conditions that enable his competitors to produce more cheaply and to market at a larger profit, and then he must have sufficient economic knowledge and ability to change his own methods to meet the new competition.

Doubt is sometimes expressed whether business education can be as well obtained by study in a university as by experience. It is urged that the university instructor is not a man skilled in business, has not the necessary knowledge of business technique, and, therefore, cannot train young men for business life. It is urged, further, that the conditions of success in business life can be duplicated in a university and that the severe training which a young man obtains under actual conditions cannot there be furnished. These contentions state only part of the truth, however; it is true that there is a large portion of the training necessary for business which can be obtained only by experience. The university does not seek to furnish this. It offers that general training and that technical knowledge of particular callings, the acquirement of which does not depend upon actual contact with business. It is not necessary, in order to give this training and knowledge, that a university instructor should be highly skilled on the technical side of any business.

It is not now commonly believed that a lawyer's office is the best training school for future lawyers. The advice of the successful practitioner of to-day is to go to a law school. This does not mean that in his opinion the knowledge necessary for success in law can be obtained wholly in a law school. There is a large fund of practical experience which the graduate of a law school must afterwards acquire. The case is similar with the engineer. The graduate of the technical engineering school is not entrusted at once with the building of a Brooklyn bridge; he must secure a certain training which he could not get at the university. The same is true of the student who intends to enter business. The aim of his university education is to give him a knowledge of general principles and *to turn him into practical life while he still retains the plasticity of character necessary to enable him to adapt himself to the conditions of business life.* It is not expected that, on graduation from the university, he shall at once become a merchant prince or superintendent of a great business. It is expected, however, that

his university training will enable him, in the long run, to rise more rapidly and be more successful.

In view of this necessity for commercial education the courses of training for business presented by the University of Illinois will attract general interest. In discussion of the subjects to be studied their latest catalogue says:

"The subject matter of a university business training must be such as to impart a knowledge of men, a knowledge of things dealth with in business, and a knowledge of technical economic, or business, conditions. The knowledge of men must be sought in every line of study which deals with human action, but principally in history and literature; the knowledge of things, in the study of scientific and technical branches which deal with them; and the knowledge of the conditions of business success, in industrial and social economics and law.

"The student of business should lay a broad foundation for his work by the study of economic geography, economic history, and political economy. These subjects will give him a knowledge of the physical resources of his country and the world; of relative industrial and commercial conditions; of the changes that, from time to time, have taken place in industry and in methods of doing business; and of the economic policies of different countries and the relation of political policy to economic life.

"The student is required, further, to study the materials, if any, of the business which he intends to follow, and such study of physical science as is necessary for this purpose is required.

"A general knowledge of law is furnished by courses in corporation law, contracts, law of commercial paper, tariff legislation, and similar topics. These courses are not intended to make the student a lawyer, but to give him that general information which every man should have in order to understand the legal side of his business.

"The extension of our commerce necessitates more and more a knowledge of the languages of other peoples. Every great business house has foreign correspondence and some responsible person must take care of it. Hence students who are looking to such positions must learn the languages which their future customers speak and must be able to write and speak them correctly and fluently.

"Finally, there are many subjects which, while not having a direct bearing upon a business career, are desirable subjects for the student to take up for the purpose of training and liberalizing his character. These are, in general, courses in language, literature, philosophy and pure science. A wide range of electives is offered in these, and a certain minimum amount of them is required."

THE WONDERS accomplished in the mining and handling of iron ore in the United States by the application of modern machinery are outlined in a special report to the British government made by the acting British consul at Chicago, Mr. T. Erskine, a copy of which has been received by the Treasury Bureau of Statistics. The report is entitled "Report on the Iron Ore Industry of the United States," but gives especial attention to the modern methods of mining and handling ore, by which hand labor has been greatly reduced. In mining ore in certain parts of the Lake Superior region he says that the top covering of ground rock is scraped off over the whole property before mining begins. Railroads tracks are then laid direct to the ore bed, and the ore is loosened by blasting. Steam shovels are then brought into use and they load the ore directly upon the cars, one of these machines having loaded 170,000 tons in 26 days, or at the rate of over 6,500 tons per day. These loading machines, which daily handle more than 6,000 tons, are each operated by 5 men, and the labor cost for mining and loading averages but about 16c per ton, and in the case of one mine which dug and loaded 293,651 tons in 174 days, the labor cost was only 4c per ton.

RANDOM SKETCHES.

BY SIDNEY ARNOLD.

THE various state association conventions of hardware merchants are over and their deliberations on trade topics are a matter of history. A glance over the various matters of trade interest discussed discloses the fact that in no convention were any papers read on ways of combatting steel range peddlers or was any question pulled out of the various question boxes bearing on this subject. Three years ago, or five years ago, the convention without a carefully prepared paper on the range wagon was something like the play of Hamlet with Hamlet omitted.

This abandonment of this topic shows that the roaming range salesman is about to follow the aborigine and the buffalo. Like Lo and the bison, the range peddler needs virgin territory. As long as there were hundreds of counties peopled with guileless farmers whose ideas of "Home Comfort" consisted in lying on the lounge in the living room and reading the local news in the weekly paper, just so long could the range peddler scheme flourish like a green bay tree. But once a range was located in a neighborhood and the high-handed methods in collecting accounts so characteristic of some of this firm's agents were employed, or the price of the range was compared with that of better goods on the floor of the local hardware dealer, or repairs for worn-out parts were bought a few times, and there was about as much chance of a peddler getting business out of that township as there is of a lumberman getting logs from a field of stumps.

This concern who have in past years been inundating the country with peddlers, despoiling the retailer of the steel range business of his locality and inducing farmers to hold the bag for their fly-by-night agents, have found themselves in the past year or two up against a losing business. The dissemination of information as to their methods in those great educative centers, the state hardware associations and the consequent adoption of energetic methods in place of a plaintive apathy, has made new territory harder to work. Then, too, new territory is growing scarcer for these people.

In order that their mechanical facilities designed for the business of their palmier days might be utilized, the main squeeze of this concern evolved from his inner consciousness the brilliant idea of making these ranges under another firm name and selling them to the retail trade. The fact that they have to use a part of their factory to make ranges to sell to dealers demonstrates that their business is falling off, as they are not increasing their capacity for new business.

The dealers who have attended executive sessions of the various state hardware associations have had this little scheme of their old enemy very thoroughly exploited and when the traveling salesmen of this new St. Louis steel range company come to see them, the association member is a good deal more likely to reach

for a good hickory-handle ax than he is to give an order for a sample or two. If he is of an oratorical turn of mind he will descant on the brazen effrontery of a manufacturer who will use a pitiable subterfuge to hoodwink the trade into buying goods made by a concern whose agents stock talk for years has been vitriolic abuse of the legitimate dealer.

Then, too, the dealer who is cozzened into handling these goods not only helps keep range peddler competition alive, but he makes an admirable target of himself for competing dealers who handle goods made by manufacturers who do not make fish of one and flesh of another.

All the technical flaws in construction, non-durability of parts, extravagant use of fuel and other sins of the peddler's range will form splendid trade ammunition for the other dealer.

"We have done others and would like to do you, too," may be a pleasant business rule for people of a certain callousness as regards morality to follow, but I would hardly care to be an enterprising hardware man who helped them live up to this motto.

* * *

THE annual report of the Connecticut Bureau of Labor Statistics shows a larger volume of manufacturing in that state in 1902 than ever before, and an increase in average daily wages paid of 2.7 per cent. More factory buildings were erected than in any previous year.

* * *

HERE is a little story which is a duplicate of many a western dealer's battle with catalogue house competition, quoted from a Canadian contemporary:

"A hardware merchant who was in town during the Bonspiel, recited a rather good instance of this short-sighted policy. A man came to him and asked to buy a mop-handle. When told it was 25c, he said, 'I can buy it for 15c at Blank's,' naming a certain department store in Toronto. 'Perhaps you can,' said the merchant, 'but 25c is the established retail price for Manitoba, and if I sold it for less I should absolutely have no profit.'"

The man went away and two weeks later the merchant saw him receive a mop-handle by express. On inquiry it was learned that it cost him 25c for express. His bargain ran in this way: "15c to Blank's for the handle, 2c for letter ordering same, 25c express; 42c in all, and he had to wait two weeks for his goods. This is by no means a solitary instance."

* * *

IN looking over the Hardware Trade Journal of London, England, I find the following efficient argument in behalf of co-operative effort:

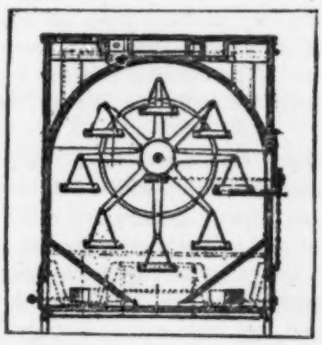
"But there is another class of men who set aside all the claims of their fellows on the ground that the matters concerned do not appeal to them personally. Of such men we would ask, Can they define the limits where their individual interests terminate, or can they describe a circle in which they can confine themselves without influencing or being influenced by the action of others? This is a day of combines and of united action. The most enthusiastic soul will soon weary by the failure of his single-handed efforts to bring about reforms. The face of the railway manager will be lighted up with a sickly smile, perhaps a sneer, as he reads the individual complaint of a trader groaning under a grievous wrong. The president of the Board of Trade will give a very polite but yet unsatisfactory reply to a protest entered by one or two men who may have the temerity to write to him. But when he hears the voice of a deputation representing powerful interests and synchronized influences he is bound to pay respectful attention and consideration to what is placed before him."

* * *

FROM the Blue Earth, Minn., Post, of March 4, I learn that "Dwight Maxson of the Maxson-Hale Hardware Co., of this city, last week attended the state association of retail hardware dealers at Minneapolis. He returned Sunday morning, and informs us that it was a very happy gathering and that he learned more about the hardware business than he could have learned in the ordinary run of trade in six months. He was made a member of an important committee, and we notice that the Minneapolis Journal's artist took a snapshot at him, as his picture appeared in that paper Saturday evening. He says he would not have missed the convention for $100."

* * *

I WOULD have offered readers of this column prizes of $100, $50 and $25 respectively for the best guesses at what was represented by the accompanying cut if I had thought there was any chance of any one guessing the right answer. It is a new cooking range for hotel or restaurant use, where a specially large capacity is necessary to keep an endless round of cookery in the oven. The usual fire chamber, with smoke outlet flues, are provided, and also a large oven to circulate freely by means of flues. Inside this oven chamber is a rotary carrier, mounted on a horizontal shaft,



and supporting a series of swing shelves on which the stuff to be cooked is placed. The carrier is rotated by a hand crank located in front of the oven, and as each shelf comes before the opening the cook withdraws the cakes, pies, etc., which he has previously placed thereon, reloads the shelf and gives the crank another turn, starting the fresh material on its journey through the hottest part of the oven and presenting the next shelf in front of the opening for like treatment. Thus the work goes on rapidly as the cook can unload and reload the shelves, the contents being done by the time the complete rotation is made, except in the case of bread. For this purpose half of the shelf can be loaded at a time, to give the loaves two revolutions, or a short time may be allowed to elapse between each movement of the carrier.

News Siftings.

An important deposit of iron ore has been found near Wrightsville, Pa.

The Baltimore Mica Co. are a new Baltimore, Md., concern capitalized at $100,000.

The Chester Cement & Iron Co., are a new Scranton, Pa., concern capitalized at $20,000.

The Mississippi Valley Stove Co., Fulton, Ill., have increased their capital stock from $70,000 to $100,000.

F. L. Dutton is president and G. W. Weber is treasurer of the United States Shaking Grate Co., Augusta, Me., capitalized at $300,000.

Liston L. Lewis, Vincent P. Donohee and R. H. Jaeger are the incorporators of the Schlecht Coal Saving Co., New York, capitalized at $100,000.

E. E. Stanton, C. H. Field and C. H. Stere are the incorporators of the American Vitrified Stove & Concrete Co., Waverly, N. Y., capitalized at $100,000.

We have received a postal card showing the trademark of the Gobeille Pattern Co., Cleveland, O., but are informed that it is not an advertisement. Oh, no; of course not!

Henry Terstegge, A. J. Terstegge and T. M. Stutz are the incorporators of the Stratton & Terstegge Co., Louisville, Ky., capitalized at $300,000 for acquiring the business of Stratton & Terstegge.

The Dixon, Ill., Star, of March 5th, states that the Mississippi Valley Stove Company's works, at Fulton, Ill., have been closed down for an indefinite period, and that a number of the employes have left to seek work in other foundry towns.

The action of the United States Steel Corporation in advancing the price of wire and nail products is due to the extraordinary demand from all quarters and the inability of its various subsidiary companies to meet requirements. The advance is a flat 10c per 100 lbs, and has been generally met by all the independent mills.

The Eclipse Gas Stove Co., Rockford, Ill., are building a large addition which will more than double their present capacity. The plans call for an addition 203x60 feet and two stories in height, a power house 50x56 feet and a japanning room 22x30 feet. Next to the main building will be a large L structure 181 feet long, 60 feet wide and two stories in height.

Norman G. Van Voorhees of the Galusha Stove Co., George Koch of the Sill Stove Works, and Wm. H. Bradley of the Diamond Nickel Plating Co., all of Rochester, N. Y., were all arrested on March 4th, charged with violating a local ordinance to the effect that exhaust fans must be provided in foundries where emery and polishing wheels are used. The foundrymen pleaded not guilty to the charges made, and the hearing was adjourned to March 17th.

The Estate of P. D. Beckwith, Dowagiac, Mich., are adding a magazine for fine soft coal or slack to their Round Oak. The fuel feeds down like hard coal owing to the deep firepot and solid cone center grate with rim discharge. A magazine full of slack or fine soft coal will feed down entire without once shaking the grate or poking the fire. Simply shaking the Round Oak grate cleans the entire bottom of fire alike. The rim discharge at bottom of fire bowl allows all refuse to pass out and not clog the fire. The cone grate holds fire to outside of firepot and prevents the formation of clinkers. The hot blast burns the gases and makes the smoke white, thus saving lots of fuel. This magazine can be attached to any Round Oak except Nos. 12 and 14.

John Kontny, 153-159 South Jefferson St., Chicago, sends us a circular calling attention to 1902-1903 additions to his line of Sunshine stoves and ranges. The place of honor in this circular is accorded the Classic Sunshine range, which has long oval fire box, with either brick or sectional cast linings, either duplex or improved combination grate; extra deep double flues, and ingenious arrangement of sliding oven and check dampers; no damper rods exposed to flame; adjustable bottom flue strip; interchangeable smoke collar; top oven plate inlaid with non-conducting plaster composition; improved adjustable oven ventilating device; flue clean out at rear of ash pit; sliding hearth cover, and capacious ash pan and water front at left end of range with immense capacity for heating water. Other of the goods described in this circular are the Mystic Sunshine range, India Sunshine range, Ruby Sunshine range, Novelty Sunshine range, Atlas Sunshine range, Glen Sunshine range, Cottage Sunshine range, Domestic Sunshine range, Golden Sunshine base burner, Brilliant Sunshine base burner, Bonnie Sunshine base burner and Sunshine Oak base burner. One of these circulars will be sent the trade on application. When writing for same, kindly add "Saw it in THE AMERICAN ARTISAN."

GASOLENE AND OIL STOVES.

The Standard Lighting Division of the American Stove Co., Cleveland, O., send us a little booklet calling attention to the "New Process" and "Standard" gasolene and oil stoves.

The "New Process" Vapor stove lights like gas. The tank or gasolene reservoir is not connected to the stove and can be easily lifted from it and carried to an outer room for filling or cleaning, thus insuring safety. In operation the fluid drips drop by drop (never runs) on the perforated brass evaporator, where it is divided into fine particles, which, passing through the air, evaporate; the gas thus made being heavier than air, passes down through the evaporator tubes mixing with and carburetting a current of air, which is lighted at the burner, producing a smokeless blue flame of great intensity and heating power. Thus it will be seen that the "New Process" is a veritable gas machine and a gas stove combined, entirely under the control of the user, who can increase or decrease the supply of fuel at will, securing the requisite amount of heat without waste; starting or stopping the fire according to requirement, thereby securing the greatest possible convenience, safety and economy of operation.

The general construction of all these stoves is thoroughly first-class. The design is new, attractive and well planned for convenience. The frames of all "New Process" stoves are made in cabinet style and

are strong and rigid. The tops are of ample width and provided with removable grates. The stove is provided with a sight feed, so that the dropping of the gasolene can at all times be seen when the stove is in operation. The valves are provided with needles having non-corrosive points; the tank equalizes and regulates the flow of gasolene at all times, consequently the tank works as well with a small amount of gasolene in it as it does when full. The parts exposed to the fire are cast iron and imperishable. All parts are so constructed that they can easly be cleaned. The stoves are handsomely enameled and ornamented. All stoves are carefully tested before shipping.

The "Standard" Wickless Blue Flame, for coal oil or gasolene, has an enlarged opening at the entrance of the cup, which provides for the expansion of gas, thereby overcoming the tendency toward a pulsating flame. The channel cup is constructed with a ledge, which projects from the outer rim toward the center of the cup. On this ledge the outside perforate of the chimney rests. This ledge prevents, to a great degree, the oil from passing by capillary attraction over the surfaces of the burner, to that part which is outside the chimney. The burner cup is made of sheet metal (brass) which is quickly heated, so that in starting the stove it can quickly be put in operation. The chimney is constructed with a small tube in the center, which extends from below the burner to the top; through this center tube a current of fresh, warm air is constantly furnished to the flames, which produces, at the center of the burner, a most powerful fire applying it at a point where the greatest possible utilization of the heat is secured. Through the large openings at the top of the inside perforate a large proportion of the flame is drawn toward the center of the burner so that the heat is applied evenly over the bottom of the cooking vessel, thereby securing the greatest amount of benefit from the fuel consumed.

One of these catalogues will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

THE NATIONAL PROTECTIVE STOVE REPAIR ASSOCIATION IS FORMED.

The New York State Stove Repair Association held its annual meeting at Albany, N. Y., on Feb. 18, and the organization decided to become a national organization, to be known hereafter as the National Protective Stove Repair Association. The membership of this association is increasing very rapidly and will soon include every wholesale stove repair concern in the United States. The object of the association is to maintain a uniform price and to have a good understanding with manufacturers of stoves so as to be able to handle original repairs.

READJUST PRICES.

The Southern Stove Manufacturers' Association and a number of members of the Western Association of Stove Manufacturers held a meeting at the Read House, Chattanooga, March 10, for the purpose of readjusting prices in Southern and Southwestern territory. The readjustments that were made amount to an advance of from 5 per cent to 10 per cent.

WILL MEET NEXT WEEK.

The National Retail Hardware Dealers' Association will meet at the Briggs House, Chicago, on March 16, 17 and 18, Monday, Tuesday and Wednesday, instead of Tuesday, Wednesday and Thursay, as previously announced.

The following are the delegates chosen in open convention for attendance at this meeting:

WISCONSIN.

Delegates—L. Findeisen, Green Bay; C. A. Peck, Berlin.

IOWA.

Delegates—S. R. Miles, Mason City; H. S. Vincent, Fort Dodge.

MINNESOTA.

Delegates—W. H. Tomlinson, Le Sueur; H. S. Cleveland, Minneapolis; Chas. F. Ladner, St. Cloud; O. F. Stebbins, Rochester; M. S. Matthews, Minneapolis.

OHIO.

Delegates—H. C. Wiseman, Springfield; Frank A. Bare, Mansfield.

Alternates—D. R. Burr, Piqua; Henry F. Rahe, Cleveland.

ILLINOIS.

Delegates—Chas. A. Williams, Streator; L. Nish, Elgin.

INDIANA.

Delegates—E. M. Bush, Evansville; J. S. Fulton, Portland.

Alternates—E. C. Minus, Hammond; M. L. Lewis, Marion.

NORTH DAKOTA.

Delegates—H. N. Joy, Hamilton; C. N. Barnes, Grand Forks; A. T. Helgesen, Milton.

Alternates—H. F. Strehlow, Casselton; H. B. Allen, Jamestown; H. A. Grambs, Bismarck.

NEBRASKA.

Delegates—Nathan Roberts, Omaha; H. J. Hall, Lincoln.

The Chicago Retail Hardware Association will do everything in their power to entertain the visitors. They have arranged for a large entertainment committee who will take care of the visitors, and they will also tender a banquet to the delegates at the Sherman House at 6:30 p. m., March 17, under charge of a committee consisting of W. H. Bennett, chairman; G. R. Lott, secretary; H. E. Gnadt, Wm. T. Gormley, Z. T. Miller, J. L. Smith and Frank F. Porter.

The Black Diamond File Works, G. & H. Barnett Co., proprietors, Philadelphia, Pa., makers of the well known Black Diamond files, have been forced by the rapid increase in their business to make some important additions to their manufacturing facilities, and they are consequently erecting a two-story brick shop 44x19 feet in dimensions, a one-story engine and boiler house 80x36 feet, and a grindstone shed 51x75 feet.

The Hardware Record.

American Hdw. Mnfs. Assn.
Pres., F. R. Plumb, Philadelphia.
Vice-Pres.—F. S. Kretsinger, Ft. Madison, Ia.; J. C. Birge, St. Louis. Geo. W. Corbin, New Britain, Conn.
S.-T., F. D. Mitchell, Pittsburg.
Ex. Com., Robert Garland, Pittsburg; Henry B. Lupton, Pittsburg; N. A. Gladding, Indianapolis; W. S. McKinley, Allegheny; F. L. Clark; Birmingham; C. W. Asbury, Philadelphia; G. N. Landers, New Britain; C. H. Holt, Cleveland.

Arkansas Retail Hdw. Dealers Assn.
Pres., John M. Pitman, Prescott.
1st V.-P., J. F. Maxey, Ozark.
2d V.-P., T. B. Stewart, Newport.
Sec., C. E. Taylor, Little Rock.
Ex. Com., H. Williams, Hot Springs; J. H. Boicourt, Little Rock; E. E. Mitchell, Morrilton; W. M. Graham Clarendon; R. F. Roys, Russellville.

Chicago Retail Hdw. Dealers' Assn.
Pres., D. McLaughlin.
V.-P., H. E. Gnadt.
Sec., G. R. Lott.
Collector, John Hora.
Treas., J. L. Smith.

Hardware Merchants' and Manufacturers' Assn. of Philadelphia.
Pres William C. Peters.
V.-P., Thomas Devin.
Sec.-Treas., T. James Fernley
Directors, W. W. Supplee, H. McCaffrey, E. S. Jackson, W. C. Peters. S. Disston. E. Fisher, J. H. Ritter, T. Devlin, T. J. Fernley.

Illinois Retail Hdw. Dealers' Assn.
Pres., Charles H. Williams, Streator.
V.-P., W. T. Gormley, Chicago.
Sec., L. Nish, Elgin.
Treas., Geo. A. Engelhardt, Chicago.
Ex. Com., Charles H. Williams, Streator; W. T. Gormley, Chicago; L. Nish, Elgin; Geo. A. Engelhardt, Chicago; William Bittel, Peoria; F. F. Porter, Chicago; H. G. Cormick, Centralia; H. N Murphy, Galesburg; C. Mauer, E St. Louis; R. G. Scheurer, Vandalia.

Indiana Retail Hdw. Dealers' Assn.
Pres., E. M. Bush, Evansville.
1st V.-P., A. N. Snider, So. Bend.
2d V.-P., W. B. Shipley, LaFayette.
Sec., M. L. Corey, Argos.
Ex. Com., M. L Lewis, Marion; W. P. Lewis, New Albany; Charles Boonshat Petersburg; E. M. Bush, Evansville; M. L. Corey, Argos.

Indian Territory Retail Hdw. Assn.
Pres., J. G. Smith, Canadian.
1st V.P., Fred Parkinson, Wagoner.
2d V.-P., E. C. Stretch, Vinita.

Iowa Retail Hdw. Dealers' Assn.
Pres. R. Miles, Mason City
V.-P., L. Lindenburg, Dubuque.
Sec., H. S. Vincent, Ft. Dodge.
Treas., A. C. Vieth, Oakland.
Members Exec. Com., Jacob Seither, Keokuk; J. Doty, West Liberty; L. Lindenberg, Dubuque; James C. Paulson, Newhall; Paul DeVol, Council Bluffs; C. S. Barger, Albia; L. H. Kurtz, Des Moines; C. R. Keating, Mt. Ayr; L. A. Guam, Carroll; C. E. Haas, LeMars.

Kansas Hardware Dealers' Assn.
Pres., Oscar Roehr, Topeka.
V.-P., E. J. King, Logan.
Sec.-Treas., J. A. Cole, Topeka.
Ex. Com., F. W. Bartlett, Kansas City; T. H. Kiniry, Beloit; J. M. Walters, Robinson; J. H. Hamilton, Arkansas City; T. J. O'Neill, Osage City.

Kentucky Retail Hardware and Stove Dealers' Association.
Pres., W. T. Oldham, Mt. Sterling.
1st V.-P., W. S. Shacklett, Fulton.
2d V.-P., Jos. C. Kirchdorfer, Louisville.
Sec., Paul Wagner, Louisville.
Treas., Henry Heick, Louisville.

Michigan Hardware Association.
Pres T. Frank Ireland, Belding.
V. Pres., John Popp, Saginaw.
Sec, A. J. Scott, Marine City.
Treas., H. C. Weber, Detroit.
Ex-Com., J. B. Sperry, Port Huron; F. A Turner, Caro; J. G. Patterson, Detroit; F. S. Carlton, Calumet; S. E. Hunt, Detroit; Samuel Winchester, Jackson; Fred S. Cook, Fowlerville; C. E. Pipp, Otsego; A. Harshaw, Delray; A J. Scott Marine City.

Minnesota Retail Hardware Assn
Pres., W. H. Tomlinson, LeSueur
V.-P., H. S. Cleveland, Minneapolis.
Treas., W. E. Barto, Long Prairie.
Sec., M. S. Matthews, Mnpls.
Exec. Com., W. H. Tomlinson, Le Sueur; H. S. Cleveland, Minneapolis; F. E. Hunt, Red Lake Falls; Benj. F. Kernkamp, St. Paul; C. H. Hornburg, New Ulm; J. Cowing, Alexandria; C. H. Casey, Jordon; C. F. Ladner, St. Cloud; J. Schmidt, Wabasha; A. T. Stebbins, Rochester; J. McGuire, St. Paul.

Missouri Retail Stove and Hardware Dealers' Association.
Pres., Tayler Frier, Louisiana.
V.-P., E. L. Wachter, St. Louis.
Sec., F. N. Neudorff, St. Joseph.
Ex. Com., J. W. Poland, Carrollton; F. N. Kannsteiner, St. Louis; W. T. Shoop, Richmond.

National Hardware Association.
Pres., R. A. Kirk, St. Paul.
1st V.-P., John C. Koch, Milwaukee.
2nd V.-P., Brace Hayden, San Francisco.
Sec.-Treas., T. James Fernley, Philadelphia.
Ex. Com., John Freeman, Detroit; Samuel B. Bigelow, Boston; P. E. Strauss, Boston; J. D. Moore, Birmingham; R. M. Dudley, Nashville; W. S. Wright, Omaha.
Advisory Board, W. W. Supplee, Philadelphia; H. H. Bishop, Cleveland; John Bindley, Pittsburg; R. W. Shapleigh, St. Louis.

Nebraska Retail Hdw. Dealers' Asn.
Pres. C. A. Peterson, Oakland.
1st V.-P. Nathan Roberts, Omaha.
2d V.-P. Alex Meyer, Hastings.
3d V.-P. Frank Hecker, Friend.
Sec.-Treas., Harry Hall Lincoln.

National Retail Hdw. Dealers' Asn.
Pres., H G. Cormick, Centralia, Ill.
V.-P., C. N. Barnes, Grand Forks.
Sec., M. L. Corey, Argos, Ind.
Treas., W. Bogardus, Mt. Vernon.
Exec. Com., W. P. Bogardus, Mt. Vernon, O.; O. P. Schlafer, Appleton, Wis.; C. F. Ladner, St. Cloud, Minn.; W. A. McIntire, Ottumwa, Ia.; S. E. Jones, Richmond, Ind.

N. Dakota Retail Hdw. Dealers' Asn.
Pres., H. N. Joy, Hamilton.
1st V.-P., H. F. Emery, Fargo.
2d V.-P., Frank Lish, Dickinson.
3d V.-P., H B. Allen, Jamestown.
Sec., C. N. Barnes, Grand Forks.
Treas., W. H. Pinkerton, Lakota.
Ex. Com., E. E. Elliott, Sanborn; H. F. Strehlow, Casselton; Hurbert Harrington, Fargo.

Ohio Hardware Association.
Pres., W. P. Bogardus, Mt. Vernon.
V.-P. J. F. Baker, Dayton.
Cor. Sec., D. R. Burr, Piqua.
Fin. Sec., W. C. Jones, Columbus.
Treas., H. A. Waller, Ravena.
Ex. Com. F. A. Powers, Norwalk; Geo. Hartke, Cincinnati; E. Fisher, Wapakoneta; J. C. Snyder, Ironton; E. M. Potter, Cleveland.

Pennsylvania Retail Hdw. Assn.
Pres., Geo. L. Moore, Brownsville.
V.-P., Geo. J. Rudolph, Pittsburg.
Sec., J. E. Digby, McKees Rocks.
Treas., B. A. Maggine, Braddock.
Ex. Com., E. E. Lyon, Greensburg; C. N. Savage, California; B. A. Maggine, Braddock; C. O. Shroyer, Dawson.

St. Louis Stove Dealers' Assn.
Pres., Wm. H. Hahn.
1st V.-P., G. A. Pauly.
2d V.-P., E. L. Wachter.
Sec., Louis Boehl.
Treas., E. Wertz.

Southern Hardware Jobbers' Assn.
Pres., F. A. Heitman, Houston.
1st V.-P., Col. B. F. Eshelman, New Orleans.
2d V.-P., John Donnan, Richmond, Va.
Sec., C. B. Carter, Knoxville
Ex. Com., W. M. Crumley, Atlanta, Ga.; O. B. Barker, Lynchburg, Va.; Chas. H. Ireland, Greensboro, S. C.; C. S. Speer, Hot Springs Ark.

Texas Hardware Jobbers' Assn.
Pres., Jas. Moroney, Dallas.
1st V.-P., J. C. Bering, Houston.
2d V.-P., J. Burnsides, Ft. Worth.
Sec.-Treas., R. Bell, Weatherford.
Ex. Com., G. A. Trumbell, Dallas; F. A. Heitman, Houston; E. S. Hughes, Abilene; J. J. Dickerson, Paris.

Wisconsin Hdw. Dealers' Assn.
Pres., L. Findiesen, Green Bay.
V.-P., H. L. McNamara, Janesville.
Sec.-Treas., C. A. Peck, Berlin.
Ex. Com., J. Kornelly, Milwaukee; E. H. Ramm, New London; H. S. Scofield, Sturgeon Bay; R. Murdoch, Beloit.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 34 to 38 inclusive.

The Southern Saw Works, East Point, Ga., contemplate extensive improvements.

A receiver has been appointed for the National Computing Scale Co., Indianapolis, Ind.

Carpenter & Mather succeed J. A. Lauer in the hardware business at Stanley, Wis.

Rogers Bros., Cloquet, Minn., have sold out their hardware business to L. A. Fish & Co.

The Illinois Screw Co., Chicago, Ill., have increased their capital stock from $25,000 to $75,000.

A new company which will manufacture all lines of hardware specialties will, it is said, shortly be started at Rockford, Ill.

The Gutwald-Wallace Hardware Co., East St. Louis, Ill., have increased their capitalization from $3,300 to $5,000.

Fairbanks & Co., Chicago, have recently received an order from the Mexican government for a large number of their scales.

A. J. Burr, J. P. Persons and Douglas Boyd are the incorporators of the Burr-Persons Hardware Co., Griffin, Ga., capitalized at $10,000.

Carl O. Noack, Harry L. Cowles and J. Foster Symes are the incorporators of the New York Lock Co., New York, capitalized at $300,000.

C. H. Lee, F. W. English and August Ockerhauser are the incorporators of the Lee-English Hardware Co., Baraboo, Wis., capitalized at $20,000.

Noll & Co. succeed Andrew Noll in the hardware business at Chilton, Wis. The new firm is composed of Jacob Noll, Anton Egerer and Ed. Plank.

F. D. Van Aradale, H. G. Van Atten and J. R. Flagg are the incorporators of the Lake Shore Wire Co., Camden, N. J., capitalized at $500,000.

Alfred Sedgwick, Robert J. Frazen and Claribel S. Torney are the incorporators of the Sedgwick Hardware Co., Caledonia, N. Y., capitalized at $10,000.

The hardware stores of Schmidt & Tibbals and Lemon, Krieger & Miller, at Millersburg, Ohio, have consolidated and the business will be run under the name of Lemon, Krieger & Miller.

George A. Wardell, Dennis B. Ryan and Henry W. Runyon are the incorporators of Nature's Own Never Slip Horse Shoe Co., Philadelphia, Pa., incorporated with a capitalization of $125,000.

The Salt Lake Hardware Co., Salt Lake City, Utah, advise us that their machinery department was not affected by their recent fire. They are now in as good a shape as ever to fill orders in this line.

Geo. T. Murton, S. B. Linthicum and H. H. Parker are the incorporators of the Consolidated Fence Supply Co., of Portland, Oregon, capitalized at $500,000 to deal in steel, wire and wood fence gates.

The firm of Cade, Lenz & Rich, Carroll, Ia., has dissolved partnership by mutual consent, R. C. Cade retiring. The business will be continued by W. O.

Rich and P. V. Lenz under the firm name of Rich & Lenz.

Chas. P. Chase, John Aldrich, Hiram D. Osborne, Frank L. Dutton, Herbert M. Heath, M. B. Stewart and Chas. L. Andrews are the incorporators of the Osborne Blind Adjuster Co., Augusta, Me., capitalized at $500,000 for dealing in blind fixtures.

Chas. H. Weston is president, Harry L. Cram is treasurer and C. H. Weston, J. A. Hillesheim, A. L. Leonard, H. L. Brady, Harry L. Cram and A. J. Desmond are the directors of the American File Co., Portland, Me., capitalized at $300,000 for dealing in files and rasps.

Foster, Stevens & Co., Grand Rapids, Mich., have purchased two buildings in that city, one 50x100 feet in dimensions, two stories in height, and the other 50x60 feet in dimensions, one story high, which they will use as a warehouse for stoves and other heavy hardware.

The molders at the plant of Russell & Erwin, New Britain, Conn., are on a strike because the management of that firm refused to collect the dues of some of the union's members for that organization. The New Britain papers state that it is doubtful if the National Iron Molders' Union will support this strike.

The Hopkins & Allen Arms Co. of Norwich, Conn., has voted to add $37,500 to its capitalization, bringing the total amount up to $300,000. The new capital will be applied to improvements. About $30,000 of new machinery has been installed within a year, and another expenditure of $10,000 for a similar purpose is about to be made.

The Pennsylvania Hardware Co., Reading, Pa., have withdrawn their application for a charter, and have made an application for another one under the substituted name of the Keystone Hardware Co. This was made on account of the similarity of the name Pennsylvania Hardware Co. with that of the Penn Hardware Co., also of Reading.

The Pullman Sash Balance Co., Rochester, N. Y., advise us that they have changed their style to the Pullman Mfg. Co. *Apropos* this change they state: "When this company was incorporated they made but one article—viz., sash balances. The line is now extended so that they make as large a quantity of several other articles as they do of sash balances, consequently the name had become a misnomer—hence the change. There has not been any change in the firm in any way whatever, exclusive of the name."

Plans have already been drawn up by the United States Steel Corporation for the enlargement of the nail mills of the Sharon Steel Co. The normal capacity of the plant is now between 3,400 and 3,600 kegs of nails a day, although it has turned out as high as 4,200 kegs. In its work of concentration a large amount of machinery from other subsidiary companies of the United States Steel Corporation is being moved to the Sharon mills, which will soon be producing on an average of 4,000 kegs of nails a day. This means an increase of approximately 125,000 kegs of nails a year.

The New Idea Fly Trap Co., Cissna Park, Ill., send us a circular describing their New Idea fly trap. The base of this trap is made of two different pieces of tin, which are soldered together. Between these are the little entrances for the flies. Inside of the base a large feed pan is located. This bait receptacle is practically covered with a float designed to prevent the flies from falling in. The top of the funnel is provided with four small holes, as that many are necessary to let the great mass of flies pass in at the upper cage. This trap is 11 inches in diameter and 22 inches high, and will catch up to 60,000 flies in a day. It is designed to be placed outside of the house to catch the flies before they enter.

The Bridgeport Gun Implement Co., 313-317 Broadway, New York, N. Y., send us a circular describing their Forstner auger bits for smooth, round, oval or square boring, scroll and twist work. The Forstner auger bit is guided by its circular rim instead of its center, consequently it will bore any arc of a circle, and can be guided in any direction regardless of grain or knots, leaving a true polished surface. It is preferable and more expeditious than chisel, gouge, scroll-saw, or lathe tool combined, for core-boxes, fine and delicate patterns, veneers, screen work, scalloping, fancy scroll twist columns, newels, ribbon molding and mortising, it is claimed. Their brace bits have square tapering shanks. Their machine bits have round shanks, ⅜ and 4-8 inches in diameter. Their cabinet machine bits have threaded shanks and square shoulders to fit doweling machines. One of these circulars will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

MORE CUSTOMERS.

More business is the shibboleth of successful merchandising. The more times in a year the merchant turns over his capital, the larger his profits. The National Cash Register Co., Dayton, Ohio, are issuing a handsome illustrated booklet which they are offering free to the trade, which describes a special method of advertising which is very effective and costs practically nothing. One of these booklets will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

WILL MEET AT NEW ORLEANS.

C. B. Carter, secretary-treasurer of the Southern Supply & Machinery Dealers' Association, is sending out a notice to the members in regard to arrangements for hotel accommodations in connection with the second annual convention of their association, which will be held at the St. Charles Hotel, New Orleans, April 8th, 9th and 10th. This is in the form of a quotation from a letter Mr. Carter received from the hotel management, and is as follows:

"Our parlor suite would be regular rates less 20 per cent, and our rates for ordinary bedrooms will range from $1.50 per day up, each person, European plan, and from $3.00 per day up, each person, American plan. We would like to see, however, that we

will have only a limited number of single rooms at our disposal, and it would therefore be necessary to place in most cases at least two persons in each room. The rooms will be good ones and amply large enough for two persons."

INTERESTING GUNS.

The J. Stevens Arms & Tool Co., 245 Broadway, Chicopee Falls, Mass., are manufacturers of the Stevens Model 1903 single trigger action, single barrel shotgun shown herewith.

Fig. 1—No. 160.

This gun is novel in its mechanism. The top snap is dispensed with, the trigger serves to open the gun as well as discharges it. When the hammer is down pressure of the trigger pulls back the locking bolt, and the gun is opened; the hammer must be down to accomplish this. The cocking of the arm is independent. The solid locking bolt prevents the gun getting shaky, even with severe and long use. The hammer of this gun is so fitted in the frame that the working parts are thoroughly protected. The main spring and locking bolt spring are made of specially tempered coil spring wire, so arranged as to give a reliable, smooth and easy working mechanism. They are specially designed for smokeless powders. All parts are interchangeable.

Fig. 2--No. 170.

The No. 160 has trigger action, low rebounding hammer, special "electro-steel" barrel, choke bored for nitro powder, pistol grip, walnut stock, rubber butt plate, drop-forged frame, case-hardened patent forearm fitted with metal joint.

For 12-gauge, 28, 30, 32 inch barrel, the weight is about 6¾ pounds.

For 16-gauge, 28, 30, 32 inch barrel, the weight is about 6½ pounds.

For 20-gauge, 26, 28 inch barrel, the weight is about 6¾ pounds.

For No. 165 the same description as for No. 160 applies, but with the addition of an automatic shell ejector. The gauges, lengths and weights are the same.

No. 170 has trigger action, low rebounding hammer, special "electro-steel" barrel, choke bored for nitro powder, automatic shell ejector, checked pistol grip and forearm, pistol grip cap, walnut stock, rubber buttplate, drop-forged frame, case-hardened, patent forearm with metal joint.

For 12-gauge, 28, 30, 32 inch barrel, the weight is about 6¾ pounds.

For 16-gauge, 28, 30, 32 inch barrel, the weight is about 6½ pounds.

For 20-gauge, 26, 28 inch barrel, the weight is about 6¼ pounds.

PATENTED HARDWARE SPECIALTIES.

The Enterprise Mfg. Co. of Pa., Philadelphia, send us their attractive and interesting 1903 catalogue of patented hardware specialties. There is nothing picayune about the line of goods shown in this 128-page volume. They make over sixty different hardware specialties, each one in a variety of styles and sizes.

The Enterprise sad irons are ground by patented machinery, which makes every iron true and the face of it slightly convex. The detachable handles are wood, excepting the lower part, which is iron, called a stretcher. They do not become hot, need no holder or cloth and naturally fit to the hand without straining the arm or wrist.

In the new line of Enterprise power choppers all flexibility in the frame is removed and with it the necessity for excessive pressure to keep the knife and plate in contact. A thrust collar takes the place of the tail button. This imposes the thrust upon a phosphor-bronze washer working between hardened steel faces in an oil box, the whole bearing being thus constantly flooded with pure lard oil.

The Enterprise sausage stuffer, lard and fruit press has new patented corrugated spout, iron cylinder bored

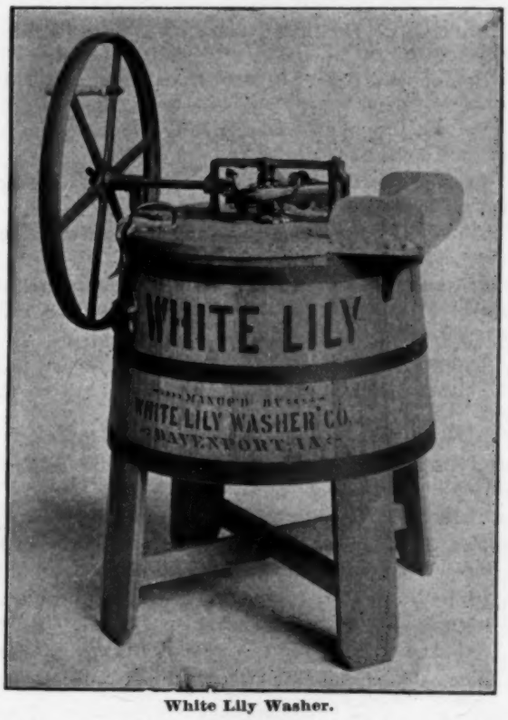
true, tin cylinder with lips and patent latch to prevent the breakage of plates.

The Enterprise smoked beef shaver has a knife suspended pendulum-like and each stroke cuts a slice cleanly and quickly, requiring but a few moments to shave down a pound of beef. The automatic feed can be regulated to cut from shavings as thin as tissue to slices one-eighth of an inch thick by adjusting a small bolt holding the connecting rod.

These are but a few of the many extensive and desirable lines of goods shown in this volume. When writing kindly add: "Saw it in THE AMERICAN ARTISAN."

WHITE LILY WASHERS.

The accompanying cut shows the White Lily washer, manufactured by the White Lily Washer Co., Davenport, Ia. This is a high speed rotary washer and the mechanical movement is so simple that there is very



White Lily Washer.

little if any friction. The movement is a tilting rack working over and under a pinion on the flywheel shaft, and thus causing a segmental rack to work longitudinally on a pinion connected with the dasher pole. It takes 3⅜ turn of the flywheel to make a turn and return of the dasher. This firm also uses a large flywheel, being 22 inches in diameter, and considerably heavier than the average fly-wheel, and by a new process they are enabled to cast a direct spoke, thus bringing the weight to the outside of the wheel. The tub is made from Mississippi and Louisiana red cypress, a timber that is less susceptible to expansion and contraction caused by hot and cold water than any other timber known, it is claimed.

In minor details they have left no stone unturned to have everything up to date, one particular feature being the bolting on of the hinges instead of putting them on with screws. The machine is handsomely finished by using a high grade mahogany coach varnish over a first-class stain on the wood parts, the iron work being finished in aluminum bronze and black enamel and the fly-wheel a bright red.

The factory of this concern covers two and a half acres and is so arranged that everything is on the ground floor. They have a joint track running the full length of the buildings so that the cars of lumber are brought right to the factory and unloaded into a large shed, whence it is taken into two immense dry kilns and out into the woodworking machinery room. Thence it passes into the cooper shop, 50x29 feet in dimensions, whence it moves right along to the finishing room. This room adjoins the iron room, which is also right beside the track, where the cars of iron are unloaded and the iron finished up. The finishing room is 78x90, and 300 machines a day can be finished in it. From the finishing room to the crating room and warehouse is the next step, and the last one before loading into the cars on a siding adjacent to the warehouse.

The officers of the company are: B. L. Schmidt, president and general superintendent of the factory; F. L. Schmidt, vice-president, and Sam T. White, secretary and treasurer and sales manager. B. L. Schmidt, who has charge of the manufacturing end, is a practical mechanic, having been in the manufacturing business all his life, and has not only a collegiate engineering education, but has also enjoyed the better education of practical mechanical life.

Sam T. White has built up a widespread reputation as a salesman of washing machines to the trade. He is thoroughly versed in trade requirements in this line, and has a widespread popularity with the best retail dealers in the west. The phenomenal jump taken by the sales of this new washer is largely due to dealers' recognition of the fact that it must be a good washer or their old friend, Sam White, could not be so deeply interested.

In marketing the "White Lily" washing machine, this company sells direct to the trade and sells only one man in each town, giving exclusive agency contracts, so that the dealer is enabled to work up a trade and control it. In order to accommodate the eastern trade they have opened a branch house at Toledo, Ohio, from which point all machines are shipped for points east of Chicago. This branch is in charge of R. P. Searle, who is working up a large business in that territory. To take care of the western trade A. D. Graham and E. J. Day of San Francisco, Cal., cover everything west of Denver.

NEW YORK STATE ASSOCIATION OF RETAIL HARDWARE DEALERS.

The first annual convention of the New York State Association of Hardware Dealers was held at the Astor House, New York City, March 11-12.

The first session was called to order at 10 o'clock Wednesday. The roll call showed a goodly representation from all parts of the state. The secretary, John R. Taylor of Little Falls, then read letters from C. J. Rumsey & Co. and Barr Bros. of Ithaca, explaining that they were compelled to stay away, owing to the sickness there. A letter was also read from President

H. D. Hull, explaining his absence. The secretary then read the names of committee chairmen that had been appointed, and also of some of the complete committees.

John B. Foley of Syracuse moved that a communication be sent to President Hull as an expression of sympathy and regret at his absence.

S. S. Bryan, Titusville, Pa., made some brief remarks, and called the attention of the members to the advantages of forming a state retail hardware fire insurance association.

H. G. Cormick, president of the National Retail Hardware Association, gave an interesting address, in which he told of the good work of the National Association.

MEETING OF PENNSYLVANIA HARDWARE DEALERS.

The two days' convention of the Pennsylvania Retail Hardware Dealers' Association at the Monongahela House, Pittsburg, Pa., was brought to a close March 4 by a banquet at the hotel followed by dancing. The members of the association were accompanied by the ladies of their families, who, with the local jobbers and families, numbered in all about 150.

Last year's officers of the association were all reelected. They are G. L. Moore, Brownsville, president; George J. Rudolph, Pittsburg, vice-president; B. A. Maggini, Braddock, treasurer, and J. E. Digby, McKees Rocks, secretary.

After the regular sessions of the convention were concluded the association's subordinate organization, the Hardware Dealers' Mutual Fire Association of Pennsylvania, went into executive session and elected officers for the ensuing year. They are C. H. Miller, Huntingdon, president; George V. Thompson, Mt. Jewett, vice-president; W. B. Simpson, secretary, and George W. Hackett, Sunbury, treasurer. The directors elected are George L. Moore, C. H. Miller, John E. Digby, Albert M. Gregg, John H. Bowers, George D. Kradse, S. S. Bryan, George W. Hackett and George V. Hackett.

SIMPLY GREAT.

Chas. Hahn, Mandan, S. D., writes: "The 'Manual of Business' came in due time. It's simply great and has helped me in a dozen ways already, and I feel like the rest of the boys who can speak their mind better than I can that it is the best thing for a young business man who wants to post himself in a hurry."

BUSINESS CHANGES.

NEW FIRMS.

New Franklin, Ohio.—W. G. Ruble.

Williston, N. D.—West & Woodman.

Bayard, Minn.—Mr. E. North and Mr. Edwards.

CHANGES.

Tremont, Ill.—John Baylor succeeds John Dietrich.

Newark, Ohio.—C. E. Love succeeds Fountain & Love in the hardware business.

Gilman, Ill.—D. H. Meyer succeeds H. H. Smith.

Shenandoah, Ia.—Crane Bros. succeed Wachob & Scott.

Walla Walla, Wash.—F. M. Aeils & Co. are succeeded by J. E. Muntinga.

Hopedale, Ill.—S. E. Strickland is succeeded by Chas. Foster.

Tracy, Minn.—Kane & Kane have dissolved partnership, and the business will now be known as Kane & Jehnson.

Battle Creek, Mich.—M. H. R. Chown has opened up a new hardware store in the Y. M. C. A. block.

Grantsburg, Wis.—Jensen & White have dissolved. B. F. White retires.

Utica, N. Y.—Harris, Wales & Co. succeed Harris & Wright.

Riley, Kan.—Mr. and Mrs. Turner are succeeded by Mr. Demer.

Humboldt, Ia.—Geo. Kent has gone out of business.

Blanchard, Ia.—McLain Bros. succeed Scott & Wachob.

Dyersville, Ia.—May & Schemmel are moving their stock of hardware to the Smith Building, where they will in the future conduct their business.

Ireton, Ia.—Scott & Lilley is succeeded by A. C. Tilford.

Delano, Minn.—M. E. Muckey succeeds T. B. Rade.

Mediapolis, Ia.—D. Kelley is succeeded by Claud Wilson and Mark Welsh.

Atlanta, Ga.—Jas. N. Moore succeeds Moore & Bradshaw.

Bocneville, Ark.—G. W. Tatum & Co. succeed G. W. Tatum.

Kosse, Tex.—The Gibbs Hardware Co. succeed Robertson & Gibbs.

Hot Springs, Ark.—The Babcock Hardware Co. are reported having sold out.

Pulasky City, Va.—Trolinger-Price Hardware Co. succeed Cassell & Pryor.

Walnut Springs, Tex.—Cunningham Bros. succeed O'Briant & Cunningham.

Yazoo City, Miss.—Ezra Smith has admitted M. L. Langford as a partner.

Clarksville, Tex.—P. Hocher & Sons have consolidated with the Marable Hardware Co., and the new firm will be Marable-Hocher Hardware Co.

Savannah, Ga.—Savannah Crockery & Hardware Co.

Chippewa Lake, Mich.—R. G. Abbey & Son succeed W. G. Reed.

Alton, Ill.—Frank Dunn succeeds Adam Gundall.

Calais, Me.—John R. Eaton has retired from the firm of J. R. & H. D. Eaton.

Clarksville, Va.—Sam Davis succeeds C. S. Wood & Co.

East Grand Forks, N. D.—T. O. Edwards succeeds John F. Brandt in the firm of Brandt & Edwards.

Lyon, N. Y.—Mrs. Carrie S. Tromer is succeeded by Hartman & Hartman.

Urbana, O.—Ed F. Curtis is succeeded by W. F. Lehman.

Troy, Ohio.—H. L. Hatfield & Bro. have dissolved; H. L. Hatfield retires.

Columbus City, Ind.—Hemmick & Jones have dissolved and are succeeded by Jones & Jontz Hardware Co.

Mt. Pleasant, Ia.—Wm. Rukgaber & Co. succeed Walker & Dalner.

Minto, N. D.—Carpenter & Miller succeed Fred Carpenter.

Knoxville, Ill.—Seth B. Conger succeeds J. C. Webb.

Fairmount, Ill.—G. H. Rice is succeeded by F. Dougherty.

Fergus Falls, Minn.—Bondy & Juverud have dissolved. Mr. Bondy will continue the business alone.

Greenville, Ia.—E. Barglof & Co. are succeeded by Barglof Bros.

Leonard, Mo.—Chas. G. Killinger purchased an interest in the store of W. H. Stuart.

Manton, Mich.—K. Klomer succeeds to the Henderson hardware stock.

Wallingford, Ia.—E. E. Hartung succeeds Irwin & Sando.

Ottosen, Ia.—Will Mertz succeeds L. E. Pritchard.

Nassau, Ia.—S. M. Fuller is succeeded by Jones & Garland.

Little Falls, Minn.—How Bros. & Co. are succeeded by the Schleusser Hardware Co.

MISCELLANEOUS.

Auburn, Neb.—Chas. Lord; burglarized; loss, $75.

Heating and Ventilating

Cassal & Waltman are a new firm of Crestline, Ohio, heating men.

Donavan & Powers are a new firm of Rockland, Mass., heating men.

The Spencer Heater Co. are a new Scranton, Pa., concern capitalized at $40,000.

The Buckeye Heating & Supply Co. succeed the Buckeye Steamfitting Co., Cleveland, O.

Chas. M. O'Neill and Frederick A. Bracken are the incorporators of the O'Neill Water Heater Co., Peoria, Ill.

Chas. Stinchfield of Detroit succeeds the late Joseph Bond on the board of directors of the American Radiator Co.

The Roberts Heating & Ventilating Co., 214 South Third St., Minneapolis, Minn., send us a very dainty calendar for 1903, calling attention to the Floral City furnaces and Gem boilers. The idea of this calendar is distinctively new, and dealers having a drag with this firm should write for one. When writing, kindly add: "Saw it in THE AMERICAN ARTISAN."

The Kewanee Boiler Co., Kewanee, Ill., and 167 East Lake street, Chicago, manufactures an extended line of boilers. The Defender steel boiler for steam and hot water heating surface burning, is one which is worthy of the close investigation of interested dealers. It burns hard or soft coal and is portable or brick-set. A descriptive circular will be sent to the trade on application. When writing same kindly add: "Saw it in THE AMERICAN ARTISAN."

Buy a toy balloon for a dime. At the end of the string tie a bunch of paper and tear off or add to the paper until the amount actually equals the weight of the balloon and let it loose in a room directly over the register. If the aforesaid room is heated by a register located in the floor the balloon will ascend straight to the ceiling. It will then slowly navigate along the ceiling to the other end of the room and then return to the side of the room where the register is on a line about 2 feet below the ceiling. If your room is heated by the Symonds wall register, manufactured by the Symonds Mfg. Co., East St. Louis, Ill., the course of your balloon would not be along the ceiling, but in the lower atmospheric strata, thus conclusively proving that this register deflects the air to the lower part of the room where heat is most desired. Where this register is used there are no holes in the floor, it is claimed, no cutting of carpets, and no discoloration of walls. It is adjusted by hand or foot, is quickly installed and is strong and durable. A descriptive circular will be furnished the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

ROYAL HOT AIR FURNACES.

The Hart & Crouse Co., Utica, N. Y., and Chicago, send us their latest catalogue of Royal hot air furnaces.

Their "Royal" and "Prince Royal" furnaces are high grade and powerful furnaces in every particular, and are suitable for heating any building requiring a first-class furnace. The "Prince Royal" furnace is low in height and can be used in low cellars where it would be impossible to use other makes. Their "Victor" furnaces are excellent medium-priced furnaces, comparing favorably with some of the best furnaces of other makes, and their "Imperial" furnace is a good low-priced furnace where a small amount of heating is required. The casing rings on all their furnaces are made in one piece, giving greater strength, a better shape, and preventing the possibility of ashes leaking in, it is claimed. The casings on their furnaces are double, with one inch air space between, through which the air travels, preventing the overheating of the cellar.

The Prince Royal combination hot water and warm air heater is especially designed to heat rooms with hot water that are difficult to reach with warm air pipes, and where it is desirable to have an apparatus that will furnish a perfect system of heating and ventilating, supplying both direct and indirect heat. This firm have suspended directly over the fire a cast iron boiler of three sections. The water enters the lower section, passing through that to the next section, and then to the upper section, and out through the flow pipe to the radiators. These sections are connected together with wrought iron nipples, and the circulation of water through them is positive and rapid. Each section is exposed to the direct rays of the fire, and the construction of the boiler is such that it does not interfere with the combustion of the fuel or the radiating power of the furnace.

One of these catalogues will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

David Morgan died at Sharon, Pa., March 7th, aged 77. He built the first tin mill in Wellsville, Ohio, in 1872. Mr. Morgan came to America about fifty years ago from Wales, where he worked in a tin mill, and because of his knowledge of the business he was awarded the contract for erecting the mill which he afterwards managed. Mr. Morgan also assisted in constructing several war vessels for the Peruvian government in South America. He managed mills in Cincinnati and Atlanta, Ind., for several years. One of the surviving sons is Theodore D. Morgan, mayor of Muskegon, Mich.

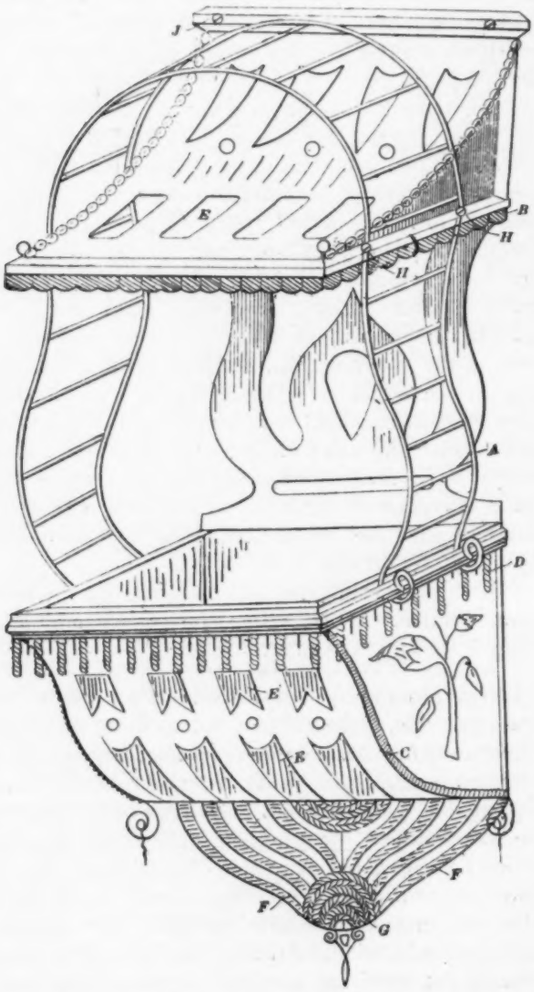
The Atlanta Tin Plate Co., Atlanta, Ind., have three of their new buildings completed.

By some remarkable oversight Nature neglected to deposit respectable quantities of tin in those parts of America owned by the United States. Tin is the one metal absolutely necessary in the production of staple manufactures which has had to be imported. Attempts have been made quite frequently to develop deposits of this metal in various sections of the United States, but with little success, either through the deposits proving too lean to work satisfactorily, or through the operation being conducted with insufficient capital. Renewed attention is now being displayed in this direction. Companies formed to operate in South Dakota and Southern California are announcing with confidence that they have not only the deposits of tin ore, but the capital to work them properly, and it is hoped that this year may see tin produced on a commercial scale.—"Commercial Intelligence."

Tinshop.

HANGING CANOPY FOR CLIMBING PLANTS.

The following is a description of a hanging canopy, which some tinner may take a notion to make for some female friend. A, wire ladder; B, edging run through crimper; C, strips run through cogs; D, strips simply twisted; E, cut out, leaving openings; F, straight strips, but bowed to bring to curled center g; G, a lot



of curled or twisted narrow strips piled one on the other, bulging out in center; H, fasten wires here securely; J, screw to wall here.

The canopy and box can be further beautified by making the openings of some neat pattern. This design simply gives the idea of hanging canopy, looking prettier when made than in sketch.

NO. 73 WALKS OUT.

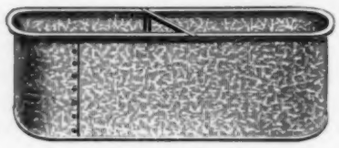
Walking delegates of Sheet Metal Workers' Union No. 73, located in Chicago, ordered a general strike in the twenty-seven shops operated by members of the Sheet Metal Contractors' Association because the latter organization have signed an agreement with the newly organized Chicago union of the Amalgamated Association of Sheet Metal Workers. Considering the fact that the Amalgamated Association of Sheet Metal Workers are a national organization, this strike against them would appear to be the work of a ruling coterie rather than Chicago sheet metal workers as a body.

GALVANIZED STEEL TANKS.

Friedley & Voshardt, 194 Mather street, Chicago, are manufacturers of a line of galvanized steel tanks shown in the accompanying cuts. Their tanks are made of the best galvanized steel obtainable.

Knocked Down Storage Tank.

Their tanks are strengthened at the top and bottom by heavy steel angle rings, and are thoroughly riveted and soldered. These tanks are made up to 300-barrel capacity and are shipped knocked down if desired.



Round End Stock Watering and Reservoir Tank.

This firm's handy farm tanks are made strong and durable. They are provided with handles and can be used for hog scalding, sheep dipping, as a wash boiler, feed mixer, wash tub, bath tub, water trough, for carrying roots, grain fodder, etc.

Round End Tank.

This firm's stock dipping tanks are made of the best grade of galvanized steel, using steel angle rims. All tanks over 16 feet long are shipped in 11 or 15 foot lengths with all holes punched and fitted.

Their galvanized steel house tanks have sides and bottom double seamed together, and all seams lapped and securely soldered. The top is surrounded by heavy wire and the case is made of good lumber.

A ROAST FOR NO. 73.

TO THE AMERICAN ARTISAN.

All working tinners will be glad to learn that at last the Amalgamated Sheet Metal Workers have decided to establish a local in Chicago. It is high time. No. 73 has been run as an independent organization for years in the interests of an arrogant and addlepated gang of grafting incompetents, who have used organized labor as a handle to pamper their despotic and bestial rule. Primogeniture is not in with this bunch of pirates. No. 73 will not recognize the card of a man in unions in other cities, but mulct him $25 just for the privilege of earning a livelihood.

The tricksters at the head of Chicago Independent Local are expensive, if they are things of beauty. For

the privilege of being led and bullied by the strangers to work at the head of this body the Chicago sheet metal worker pays dearly. The incompetency of these alleged leaders is shown by the fact that sheet metal workers in Chicago get 42½ cents per hour, while cities all over the United States are paying from 45 to 55 cents. Success to the new Chicago union.

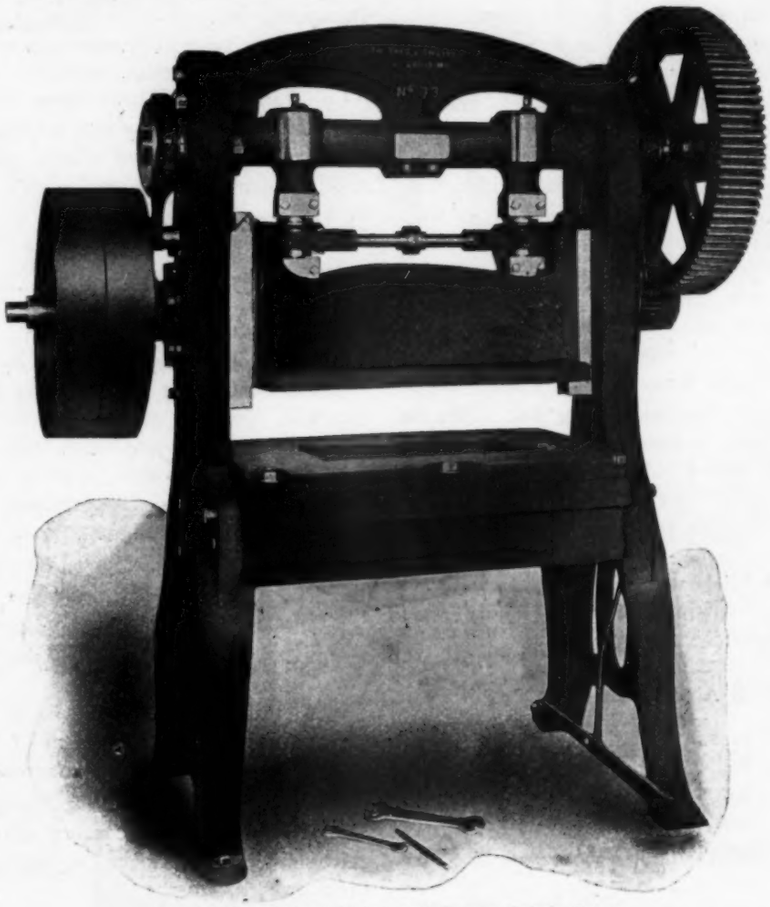
Chicago, March 9, 1903 TRUE UNIONIST.

RANGE MAKERS AND HEAVY SHEET METAL PRESS.

The Fred J. Swaine Co., Seventh and O'Fallon streets, St. Louis, Mo., have just placed on the market a line of heavy double crank geared presses, one of which is shown herewith.

These presses are adapted for cutting, drawing, forming and bending operations on such work as ranges, gasolene stoves, covers, coal hods, tanks and numerous other articles made out of sheet metal. Dimensions, which can be modified, are as follows:

Weight geared about 6,500 pounds; opening in bed F to B, R to L, 20x30 inches (as desired); width between uprights, 40 inches; distance bed to slide, stroke and adjustment up, 9 inches; motion of slide (as desired) Standard, 1 to 3 inches; adjustment of slide, 6 inches; proportion of gearing, 1 to 5; number of strokes per minute, 40.



No. 73 Heavy Sheet Metal and Range Makers Press.

Chas. H. Drury is president and general manager of the Cadillac Can Co:, Cadillac, Mich., a new concern.

"CONCERNING THAT ROOF."

This is the title of an interesting booklet sent us by the Cortright Metal Roofing Co., Philadelphia and Chicago, from which we make the following excerpts concerning the popular roofing made by this firm:

"The Cortright metal roofing is designed to avoid the heaviness, the expense and fragility of slate roofs; to avoid the lack of wearing and fireproof qualities in the wood shingle, and to provide a substitute for the 'buckling,' rattling and expensive economy of the tin roof, and to increase the beauty of a roof. The Cortright roofing is made of separate pieces, called shingles or slates, cut from heavy sheets of tin stamped into shapes and patterns that have become standard.

"Each of these pieces is called a 'shingle' or 'slate.' The patented feature of the Cortright roofing is the device by which the shingles or slates are locked together. This device is considered the best on the market.

"The Cortright roofing by its special patented features automatically expands or contracts without the slightest injury to the material or to its absolute stormproof tightness.

"The secret of this lies in the patent side lock. While the slates are locked tightly, yet there is room for them to expand or contract automatically.

"The special step arrangement and the turned bottom edge, which fits over the fourth angle, gives play for the contraction and expansion.

"The tightness of the Cortright roofing is its strong-

est feature. For the past sixteen years it has been tested in the tornadoes of the tropics, the hurricanes of the West and in the snowy gales of the North, and not once has it been found wanting in its power to do its duty as a protection from the elements.

"Cortright roofing will last as long as the building, has been our claim from the beginning. Every day as the years lengthen we receive fresh proofs of this claim. We do not claim, however, that Cortright roofing will do this unless the roof is given the ordinary care that an ordinarily careful man would give to his possessions.

"Every shingle (except those we galvanize), before it is sent out of our factory, is dipped in a vat of our specially prepared roofing paint, thus insuring a full coat of the very best covering on both sides and edges.

"A Cortright roof should be painted immediately after laying, then once every four or five years.

"Let us add here that our galvanized roofing does not require any paint to preserve it.

"The Cortright roof will withstand any atmosphere. A metal roofing that can stand the salt air of the seashore can stand any air—that every roofer will say.

"In Atlantic City, N. J., we roofed buildings with Cortright roofing in 1888. They are as good to-day as the day they were put on. The hundreds of testimonials from all over the country that we show to interested parties bear ample testimony to our claims for durability.

"Our roofing is made from what is known to the trade as I. C. prime charcoal roofing tin. This tin is the best made, being selected thin sheets of steel, heavily and evenly coated. All our roofing is made from sheets weighing 216 pounds to every box of 112 sheets, 20x28 inches—this is the standard weight of 'prime' plates."

One of these price lists will be forwarded the trade application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

NOTES AND QUERIES.

BRASS LABELS.

From Grant Stricker, Battle Creek, Mich.

Where can I buy brass labels?

Ans.—Geo. M. Ness, Jr., 61 Fulton street, New York, and the Schwerdtle Stamp Co., Bridgeport, Conn.

IRON AND SHEET STEEL.

From J. P. Lindemann & Sons, Milwaukee, Wis.

Can you give us the names of rolling mills that will supply light gauges of iron and steel sheets.

Ans.—American Rolling Mill Co., Middletown, O.; American Sheet Steel Co., New York, N. Y.; American Steel & Wire Co., Chicago, Ill.; Basset-Presley Co., Cleveland, O.; Bourne-Fuller Co., Cleveland, O.; Cincinnati Iron Store Co., Cincinnati, O; A. M. Crane & Co., Chicago, Ill.; Denman & Davis, New York, N. Y.; Empire Iron & Steel Co., Niles, O.; Globe Rolling Mill Co., Cincinnati, O.; Goff, Horner & Co., Pittsburg, Pa.; Arthur C. Harvey Co., Boston, Mass.; Monarch Iron & Steel Co., Pittsburg, Pa.; Niles Iron & Sheet Co., Niles, O.; J. M. & L .A. Osborn Co., Cleveland, O.; Republic Iron & Steel Co., Chicago, Ill.; Joseph T. Ryerson & Co., Chicago, Ill.; Wm. B. Scaife & Sons Co., Pittsburg, Pa.; Scully Steel & Iron Co., Chicago, Ill.; Steel & Iron Aluminum Coating Co., Connellsville, Pa.; N. & G. Taylor Co., Philadelphia, Pa.; W. H. Thomson & Co., Philadelphia, Pa.; Zug & Co., Pittsburg, Pa.

STOVE PIPE.

From Lawler WaterFeed & Damper Regulator Co., New York.

Can you give us names of manufacturers of stove pipe?

Ans.—Alexander Mfg. Co., Canonsburg, Pa.; Chas. Beindorff, 217 E. Spring street, Columbus, O.; Hemp & Co., St. Louis, Mo.; Ohio Stove Pipe & Mfg. Co., New Philadelphia, Pa.; J. M. Seidenburg, New York, N. Y.; Triumph Adjustable Stove Pipe Co., Joliet, Ill.; E. C. and I. K. Wright, Ruffin, N. C.; Weisenborn Mfg. Co., 833 Massachusetts avenue, Indianapolis, Ind.

CIRCULAR TROLLEY BUGGY AND WAGON WASHER.

From "Reader," Evansville, Ind.

Can you give us the address of the firm making a circular trolley buggy and wagon washer, which is attached to the ceiling of a barn, the iron pipe traveling in a circle above the vehicle or wagon being washed?

Ans.—Can any of our readers furnish the desired address?

ITEMS.

O. B. Alsdrof is a new Utica, Ohio, tinner.

Lewis Ferrell has opened a tin shop at Milledgeville, Ga.

Fred McLain has sold his tin shop at Savannah, Mo., to A. L. Snapp.

John A. Topping, vice-president of the American Tin Plate Co., has resigned.

The Griffiths Charcoal Iron Tin Mills at Washington, Pa., have resumed operations.

Frederick Burkhardt, a Buffalo, N. Y., tinner, has assigned with liabilities of $6,056.11, and assets of $350.

M. J. Isaacs, I. Harris and Elmer Drury are the incorporators of the Globe Metal Co., Chicago, capitalized at $15,000 for the manufacture of metals.

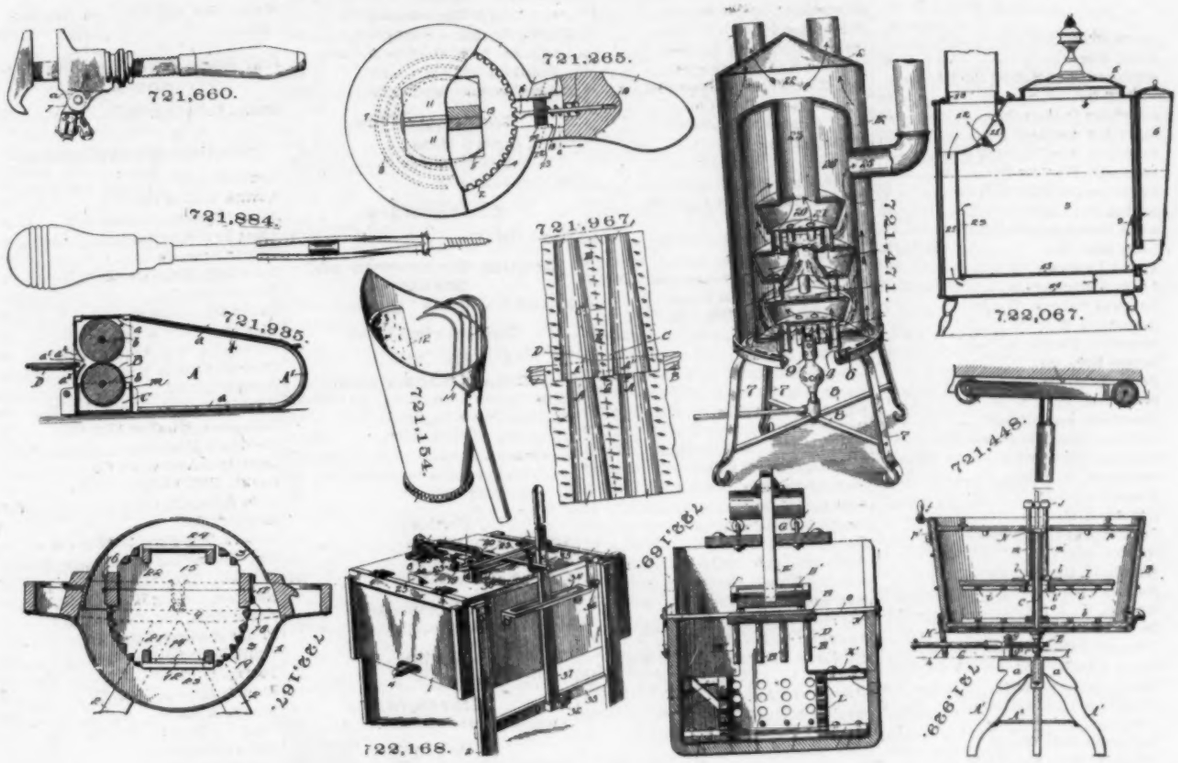
The Green Bay Cornice & Corrugating Co. are a new Green Bay, Wis., concern who will manufacture galvanized iron cornices, skylights, conductor pipe, eaves trough, etc.

J. W. Thompson is president, I. T. Tilley is vice-president, I. T. Thompson is secretary and A. E. Donavan is manager of the recently organized Canadian Tin Plate Co., Ltd., London, Ont.

Morgan R. Mills is president, John L. Boltz is secretary, John Bowers, Jr., R. E. Crew, W. A. Cheatwood and W. E. Warren are the incorporators of the Morgan R. Mills Co., Richmond Va., capitalized at $10,000 for carrying on a tinning business.

Stuber & Kuck, Peoria, Ill., have purchased the ground occupied by their factory for $18,600. This ground, 120x170 feet in dimensions, is located on South Water street, that city. They have been located in these quarters for six years past and have been in business for fifteen years.

NEW PATENTS.



721,660.—Pipe wrench and cutter. Charles S. Bonney, Portsmouth, O.

721,265.—Ratchet wrench. Milton J. West, Ogden, Utah.

721,884.—Screw driver attachment. George M. Gamwell, Greenwich, Mass.

721,471.—Hot air furnace. Robert Schlumberger, Allegheny, Pa.

721,967.—Joining metallic roofing tiles. Edwin L. Quinn, Los Angeles, Cal.

721,935.—Machine for cleaning sheet metal plates. Richard D. Buncke, Jersey City, N. J.

721,154.—Fruit picker. George W. Clark, Opal, Va.

721,448.—Curtain fixture. Herbert E. Keeler, New York.

721,929.—Washing machine. Frederick H. Wiard, East Avon, N. Y.

722,067.—Stove. James Wilson, St. Louis, Mo.

722,167.—Washing machine. James Vining, Neodesha, Kan.

722,168.—Washing machine. Samuel Walter, Dallas City, Ill.

722,169.—Washing machine. Felix Warbriton, Attica, Ind.

THE DECREASING IRON ORE OF BILBAO.

The total amount of pig iron shipped from Bilbao during 1901 was given in the custom house returns at 4,056,701 tons, says Mr. Consul Ranald Macdonald in his report on the trade and commerce of Bilbao for the year 1901. The entire quantity of ore raised was 4,894,909 tons, or nearly 250,000 tons less than the estimate recorded in the report for the preceding year. The decrease is attributed in part to the near exhaustion of certain mines in Abanto and Ciervana and, in part, to a falling off in the demand from the United Kingdom. Of the entire quantity of 4,056,791 tons shipped in 1901, 2,281,198 tons were sent to the United Kingdom, being a decrease, as compared with 1900, of 820,365 tons. Germany, who takes phosphoric ore more readily than British ironmasters, increased her direct importation from Bilbao from 66,401 tons (in 1900) to 636,509 tons (in 1901). Canada appeared on the scene for the first time as a direct importer of over 7,000 tons of iron ore. In 1901 Bilbao sent 9,434 tons of pig iron to the United Kingdom, as against 5,113 tons in 1900. In 1901 Italy took 11,062 tons, against 4,906 tons in 1900. To France 4,456 tons were sent in 1901, against 4,016 tons in 1900.—Commercial Intelligence.

BOTH RATTLED.

The other day a man rushed into the Punxsutawney hardware store in a great hurry, as he wanted to catch a street car, and said:

"Give me a porn-copper."

"You mean a pop-corner," said the clerk.

"Yes, I said a cop-porner. Hurry up."

"All right—you want a porn-corper."

"I said cob-porner, didn't I?"

"No, you said corp-corner."

"I did not. I said corb-ponner."

"Get out. You said prop-conner."

"No, sir. I said crop-porner."

"Didn't."

"Did."

"Well, you might as well take your time now," said Harry Evans, as he approached the excited would-be purchaser; "you car's gone."

So he bought the corn popper and waited for the next car.—Punxsutawney Spirit.

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Stokes, W. A. & Co 44

Lawn Mowers.

Philadelphia Lawn Mower Co. The 50

Lawn Sprinklers.

Smith & Hemenway Co 48

Mail Boxes.

Canton Steel Roofing Co 41
Hessler, H. E 51
Peck, C. A 51

Metals—Perforated.

Aitchison, The Robert Perf'd Metal Co 4

Metal Workers Crayons.
Steward, D. M., Mfg. Co..... 41

Novelties.
Electric Novelty Co..... 40

Ovens.
Huenefeld, E. H..... 9

Oven Thermometers.
Helios-Upton Co..... 52

Paints.
Buckeye Paint & Varnish Co..... 49
Connors, Wm. Paint Mfg. Co..... 1
Dixon, Jos. Crucible Co..... 40
Forest City Paint Co..... 50

Pattern Letters.
St. Louis Electrotyping & Fdy. Co. 42

Patterns, Metal.
Balkwill Pattern Works..... 45
Wenzel, C. E., Co..... 45

Polish.
Hoffman, Geo. W..... 52
Stevens, F. B..... 12

Radiators.
American Radiator Co..... 2

Refrigerators.
Grand Rapids Refrigerating Co... 47

Registers.
Clear, Chas..... 8
Henry & Scheible..... 13
Symonds Mfg. Co..... 13

Roofing.
American Steel Roofing Co..... 43
Auld & Conger..... 44
Berger Mfg. Co..... 42
Clark, Quien & Morse..... 41
Cortright Metal Roofing Co..... 55
Eller, J. H. & Co..... 41
Klauer Mfg. Co..... 43
LaCrosse Steel Roofing & Corrugating Co..... 44

Roofing—Continued.
McVoy, John & Co..... 44
Milwaukee Corrugating Co..... 43
Osborn, The J. M. & L. A. Co..... 56
Perkins, J. L. & Co..... 1

Roofing Slate.
Auld & Conger..... 41

Sash Balance.
Pullman Mfg. Co..... 56

Saws.
Atkins, E. C. & Co..... 56
Disston, Henry & Sons..... 44

Saw Sets.
Disston, Henry & Sons..... 44
Smith & Hemenway Co..... 48

Scales.
American Cutlery Co..... 55
Pelouze Scale Co..... 50

Screw Drivers.
Acme Mfg. Co..... 52
North Bros. Mfg. Co..... 51

Shelves.
Cutler Hardware Co..... 55

Shovels.
Avery Stamping Co., The..... 48

Skylights.
Jones, J. H..... 2

Skylight Gearing.
Weiss, H. & Co..... 45

Slate Machines.
Dwight Slate Machine Co..... 45

Sporting Goods.
Hopkins & Allen Arms Co..... 48
Stevens, J. Arms & Tool Co..... 56

Stove Bolts.
Atlas Bolt & Screw Co..... 2

Stove Lining.
Connors, Wm. Paint Mfg. Co..... 1
Bridgeport Crucible Co..... 7
Williams Stove Lining Co..... 42

Stove Patterns.
Balkwill Pattern Works..... 45
Cope, Geo. W. Pattern Works..... 45
Gobeille Pattern Works..... 45
Milwaukee Pattern Works..... 45
Weller Pattern Co..... 45

Stove Polish.
Dixon, Jos. Crucible Co..... 40

Stove Putty.
Connors, Wm. Paint Mfg. Co..... 1

Stove Repairs.
Brauer, A. G..... 45
Dust, Wm. T. Co..... 45

Stoves and Ranges.
Beckwith, Estate of P. D..... 14
Brand Stove Co..... 10
Champion Steel Range Co..... 9
Faultless Mfg. Co..... 7
Home Pride Range Co..... 54
Joliet Stove Works..... 8
Lennox Mfg. Co..... 10
March, Brownback Stove Co..... 10
Miller, Wm. Range & Fur. Co..... 6
Pittsburgh Stove & Range Co..... 4
Schill Bros..... 9
Standard Lighting Co..... 3
Sun Stove Co..... 4
Travilla, M..... 1
Willard, Wm. G..... 12

Stove Trimmings.
Atlas Bolt & Screw Co..... 1
Columbus Bolt Wks..... 1
Matthews & Willard..... 41
Sayre Stamping Co..... 45

Tacks.
Tower Mfg. Co..... 48

Tape Measures.
Lufkin Rule Co..... 55

Tinners' Tools and Supplies.
Berger Bros. Co..... 55
Clayton & Lambert Mfg. Co..... 42
Klauer Mfg. Co..... 43
Lufkin Rule Co..... 55
McVoy, John & Co..... 44
Perkins, J. L. & Co..... 1
Sayre Stamping Co..... 45
Smith & Hemenway Co..... 48
Stanley Rule & Level Co..... 44
Swain, Fred J. & Co..... 52
Taylor & Boggis Fdy. Co..... 46
Turner Brass Works..... 49
Weiss H. & Co..... 45

Tinplate.
American Tinplate Co..... 41
Illinois Roofing & Supply Co..... 42
McClure & Co..... 56
McVoy, John & Co..... 44
Osborn, The J. M. & L. A. Co..... 56

Tinware.
Cooney & Geiger..... 56
Ehle, F. G. O. Co..... 50
Nat. Enameling & Stamping Co... 53
Stuber & Kuck..... 52

Torches.
Clayton & Lambert..... 42
Turner Brass Works..... 49

Tools.
Acme Mfg. Co..... 52

Typewriters.
Fox Typewriter Co..... 48

Ventilators.
Globe Ventilator Co..... 56
Powers Bros..... 1

Wagons.
Shipman, Bradt & Co..... 49

Washing Machines.
Brammer, H. F. Mfg. Co..... 49
Clark, Quien & Morse..... 41
Voss Bros. Mfg. Co..... 49
White Lily Washer Co..... 49

Wrenches.
Acme Mfg. Co..... 52

AMERICAN CANNING INDUSTRY.

An exhibition devoted to the canning of American fruits, sea food and vegetables furnishes a theme to Wm. E. Curtis, who writes as follows on this topic:

"J. W. Dutton of Valparaiso, Ind., suggests that the canning industry furnishes material for a very interesting article, which is true, and if we begin at the beginning we find that prior to 1795 drying and the use of salt and sugar were the only methods of preserving food. In that year Nicholas Appert, a Frenchman who had spent most of his life in the business, being stimulated by the offer of a reward by the French government for a method of preserving food for sea service, invented what is now known as hermetic sealing, which has since been applied to all kinds of fruits, vegetables and meats, the object being to inclose the fruit in a perfectly sealed jar or case from which the air is expelled. France purchased Appert's process and gave it to the public. By this means the industry spread over Europe and was brought to America in 1818 by Peter Durant, who, in company with Thomas Kensett, went into the business of preserving salmon and lobsters. They were able to put up about 150 cans a day.

"The first fruit canning in America was done by William Underwood and Charles Mitchell, who had been employed in canning factories in England and came to Boston for the purpose of starting an establishment for the manufacture of pickles, jellies, jams and mustard. They also canned damsons, quinces, currants and different kinds of berries. In 1825 Kensett secured a patent for the use of tin cans as a substitute for glass jars, which had been used exclusively up to that time. Since then tin has been the favorite material for cans. In early days cans were made entirely by hand, the bodies being cut out with shears and the joints soldered. In 1847 Allen Taylor invented a machine for making them, which has been improved upon until now they are made from Bessemer steel plates by a single process at a trifling price. Machines shown at the recent exposition will turn out from 30,000 to 35,000 a day, and I am informed that the American Can Company, one of the great trusts, organized in 1901 with a capital of $88,000,000, has an output of more than 1,600,000,000 every year. In order to avoid all danger of poison by chemical action, before use the cans are subjected to baths in acids and oils."

A WALKING HARDWARE STORE.

Claude Trimble, twenty-four years old, walked into Erie County Hospital in Buffalo a week ago and asked medical attention. Friday Dr. Gaylord performed an operation. In Trimble's abdomen were more than two pounds of metal. After the operation had been successfully performed the surgeons had taken from Trimble's stomach 453 carpet tacks, 41 penknife blades, 142 screws, 40 pen points, six and a half ounces of ground glass and a chain about three inches in length and made of wire. Trimble formerly traveled with a circus and was a tack-eater.—New York Commercial Advertiser.

OUR TYPEWRITERS.

There are now in the market no less than fourteen different styles of $100 typewriters. Only six of the fourteen have as few as from 1,800 to 2,587 parts. Four have from 1,200 to 1,800. Four have 1,000 or less. Several of the fourteen have from 95 to 104 springs, and not one has less than 40. What we want is a $35 machine.—The New York Press.

Trade Report.

CHICAGO IRON MARKET.

The main activity displayed in this market during the past week has been in the lines of sales of Standard and Malleable Bessemer for delivery during the next thirty to ninety days.

The disinclination of buyers to cover for any part of the last half has kept down the tonnage, but the total makes a good showing.

Prices secured at Chicago have been lower than at some other points for the reason that there is competition from local furnaces against shipments from the Valley.

There is a disposition to sell freely from the latter district and competition has been very close.

There was a noticeable increase in the demand for spot delivery material, as shipments from furnaces, while made with reasonable degree of promptness, are greatly delayed in transit.

Some sales are reported for the third quarter at full prices.

Interest in purchasing for the last half of the year is steadily growing, but no one appears sufficiently sanguine to predict just when a general buying movement may be expected.

No improvement is noted in the car situation, and the fact that large operators are securing equipment of their own, and that some consumers are doing likewise is a clear indication that no early movement is anticipated.

Statistics have been compiled and theories advanced, apparently, demonstrating additional equipment being put in service by the railroads to better handle the freight, but facts relative to the transportation problem are stubborn and continue to embarrass in the most aggravating manner the efforts of manufacturers to assemble raw materials in a satisfactory manner.

It is pretty generally agreed that when the difficulties referred to are removed, iron will be more plentiful, and prices therefore decline, but when this point will be reached is an unknown quantity.

POTATO PLANTERS.

Acme potato planters are quoted at $6.25 per dozen.

EAVE TROUGH HANGERS.

Baker's eave trough hangers are quoted at $2.60 per gross.

LEMON SQUEEZERS.

Boss tinned iron lemon squeezers are quoted at 84c per dozen; King lemon squeezers are quoted at $2.50 per dozen; Drum lemon squeezers are quoted at $4.50 per dozen.

DAMPER CLIPS.

No. 10 standard damper clips are quoted at 70c per dozen.

HUSKERS.

Huskers are quoted as follows: No. P X, $5.20 per gross; No. A, $2.00 per dozen; No. O, $2.20 per dozen; No. O X, $1.65 per dozen; Harrington's, $4.20 per gross; 102 Ideal, $1.35 per dozen; 101 Ideal, $2.50 per dozen; 100 Ideal, $2.75 per dozen.

SAP PAILS.

Ten-quart galvanized sap pails are quoted at $1.60 per dozen; 12-quart are quoted at $1.85 per dozen.

WROUGHT BUTTS.

A discount of 70, 10, 10 and 5 per cent is quoted on Nos. 800, 804, 808, 810, 814 and 834 wrought butts. A discount of 70, 10, 10, 10 and 5 per cent is quoted on Nos. 838, 840 and 842 wrought butts. A discount of 75, 25, 10, 10 and 5 per cent is quoted on Nos. 822 and 823 wrought butts.

MACHINISTS' HAMMERS.

A discount of 60, 10 and 5 per cent is quoted on Vaughan & Bushnell's machinists' hammers.

HOOF NIPPERS.

Vaughan & Bushnell's hoof nippers are quoted at a discount of 40 and 5 per cent.

FAUCETS.

Petroleum faucets are quoted at a discount of 60, 10 and 5 per cent.

COPPER.

Copper is firm and higher, though prices are largely nominal. The last quotation is 14⅜@14½c for lake and electrolytic, with casting at 14⅛@14¼c. London closing was cabled quiet: Standard copper, closing spot, £63 2s 6d; sales, 450 tons; futures, £63 7s 6d; sales, 650 tons.

TIN.

Tin was easy yesterday in New York, the closing being 29.95@30.30c for spot and 29.75@30.25c for futures, both for round lots in New York. The jobbing price is steady at 31½@32½c; London was last cabled easy at £135 12s 6d for spot and £136 for futures.

TIN PLATES.

Tin plates are firm at the advance. The jobbing quotations are: Melyn, $6.50@7; Alloway, $5.75@6.25; coke, $4.87½@6.50; ternes, $5.25@8; additional X, $1.50@1.75 more.

LEAD.

Lead is higher, the American Smelting & Refining Company having advanced the price of pig lead to 4.35c on account of advance in London. The jobbing

quotation is also ¼c higher at 4⅝@5c, according to amount; London, £13 10s; St. Louis, firm, at 4.05@4.15c; manufactured pipe, 6½c; sheet, 7½c; tin pipe, 50c; tin-lined pipe, 12½c; old lead, in exchange, 3¾c; tea, 3½c.

SPELTER.

Spelter is firm: Round lots, New York, 5.15@5.20c; jobbing, ¼@½c more; sheet zinc, cask lots, 6¾@7c; small lots, 7¾@8c; St. Louis market is quoted firm at 5c bid; London, £22 10s.

ANTIMONY.

Antimony is dull and depressed: Cookson's, 8¼c; Hallett's, 6⅞@7c; United States, Star and other brands, 6½@6⅜c. The above prices are for round lots in New York; small lots, Hallett's, would cost 7¼@7½c in New York and 7¾c here.

NICKEL.

Nickel is steady at 40@47c for large lots. Small lots as high as 60c.

PLATINUM.

Platinum is firm, with a good demand: New York, $19 per oz for large lots.

QUICKSILVER.

Quicksilver is steady: New York, $47 per flask for large lots; small orders, more; San Francisco, $45.50@46.50, domestic orders; exports, $43@43.50; London is steady at £8 12s 6d.

ALUMINUM.

Aluminum is quiet and unchanged: No. 1 ingot, 33@37c per lb; No. 2, 31@34c; rolled sheet, 4c and up.

BARS.

The freedom that prevailed several weeks ago in placing contracts has abated some. Nevertheless a good business is being done. The most promising feature of the situation is the numerous orders for small lots for quick shipment, indicating that stocks in the warehouses of consumers are low. The movement in steel bars is good, buying being of liberal proportions. Hoops and angles are also active. We quote as follows, mill shipment, Chicago delivery: Bessemer steel, 1.76½c; angles, less than 3x3, 1.86½c base; hoops, in lots of 250 tons and greater, 2.06½c; less than this amount, 2.16½c; iron, 1.86½c to 1.91½c. Store prices are as follows: Steel, 2c to 2.10c; iron, 2.15c to 2.20c; hoops, 2.40c to 2.50c; angles, 2.25c rates.

STRUCTURIAL STEEL.

Not many large contracts have been placed, but a good business in smaller lots has prevailed. We quote mill prices, Chicago delivery: Beams and channels, 15 inches and under, 1.75c to 2c; 18 inches and over, 1.85c to 2.10c; universal plates, 1.75c to 1.95c; angles, 3x3 and larger, 1.75c to 1.95c; tees, 3x3 and larger, 1.80c to 1.90c; zees, 1.75c to 1.95c. The maximum quotation is asked by some mills on lots for quick delivery. Material from store, cut to length, 2¼c to 2½c per pound.

PLATES.

Orders for the entire year have been taken during the week and many mills turning away work. We quote mill shipments, Chicago delivery, as follows: Tank steel, 1.75c to 1.95c; flange steel, 1.85c to 1.95c base. Prices for small lots from stock, tank steel ¼-inch and heavier, 2.15c to 2.25c; 3-16, 2.25c to 2.35c; No. 8, 2.30c to 2.40c; No. 10, 2.35c to 2.45c; flange steel, 2.40c to 2.50c.

BILLETS.

Jobbing trade retains its strength, while the general market is quiet. Bessemer billets are nominally quotable at $31.50, delivered Chicago, for delivery during the second quarter of the year, either domestic or foreign. There has continued to be a fair inquiry for open hearth forging billets, several 100-ton lots selling at prices ranging from $34 to $38, with specially small sizes bringing as much as $40, according to analysis, buyer and time of delivery.

MERCHANT STEEL.

The prominent feature in merchant steel is the difficulty experienced in shipments, which is likely to continue some time. The volume of new business is not large, but there continues to be a fair demand for small lots. Prices remain firm for mill shipments, as follows: Smooth finished machinery steel, 2.01½c to 2.11½c; smooth finished tire, 1.96½c to 2.11½c; open hearth spring steel, 2.66½c to 2.76½c; toe calk, 2.31½c to 2.46½c; sleigh shoe, 1.86½c to 1.96½c; cutter shoe, 2.41½c to 2.61½c. Ordinary grades of crucible tool steel are quoted at 6½c to 8c for mill shipments; specials, 12c upward.

RAILS AND TRACK SUPPLIES.

The heavy demand from western roads is surprising when considering the large tonnage already booked. Between 75,000 and 80,000 tons are said to have been placed during February and the prospects are that even a heavier tonnage will be booked during the current month. Five or six different lots ranging from 500 to 1,200 tons have been placed during the past few days, but with scarce an exception the orders have gone to eastern mills. The demand for light sections has also continued on a liberal scale. The current production of local mills, which aggregates about 60,000 tons a month, is fully engaged. The market could scarcely be stronger, but the prices remain as previously quoted, $28 for standard and $27 for second quality, mill shipments, while light rails are quotable at $35 to $40, according to weight, although and strong at full prices. The following are the prices premiums are asked and obtained for small lots for early shipment. Track supplies have continued active current: Splice bars or angle bars, 2c; spikes, 2.50c; track bolts, with hexagon nuts, 3.10c to 3.25c; square nuts, 2.95c to 3.10c.

Current Hardware and Metal Prices.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly.

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box.
IC	14x14	$10 25
IC	14x20	7 85
IX	14x20	9 10
IXX	14x20	10 35
IXXX	14x20	11 60
IXXXX	14x20	12 85
IC	20x28	15 45
IX	20x28	17 95
IXX	20x28	20 45

COKE PLATES.

Cokes, 180 lbs	IC	20x28	9 15
Cokes, 200 lbs	IC	20x28	9 35
Cokes, 216 lbs	IC	20x28	9 65
Cokes, 216 lbs	IX	20x28	11 75

PIG IRON.

Lake Sup. Charcoal	$26 50@$27 50
Local Coke Fdy No. 1	23 50@ 24 50
Local Coke Fdy No. 2	23 00@ 24 00
Local Coke Fdy No. 3	22 50@ 23 50
Local Scotch Fdy No. 1	24 00@ 24 50
Ohio Strong Softeners, No. 1	26 30@ 26 80
Southern Silvery	26 15@ 27 15
Southern Coke No. 1	22 85@ 23 35
Southern Coke No. 2	22 35@ 22 85
Southern Coke No. 3	21 85@ 22 35
Southern No. 1 Soft	22 85@ 23 35
Southern No. 2 Soft	22 35@ 22 85
Foundry Forge	21 35@ 21 85
Alabama Car Wheel	27 35@ 28 35
Malleable Bessemer	23 00@ 24 00
Jackson Co. Silvery	31 30@ 32 30

BLACK SHEET STEEL.

No. 16	per 100 lbs.	$2 65
No. 18-20	per 100 lbs.	2 75
No. 22-24	per 100 lbs.	2 85
No. 25-26	per 100 lbs.	2 95
No. 27	per 100 lbs.	3 05
No. 28	per 100 lbs.	3 15
No. 29	per 100 lbs.	3 30

SMOOTH STEEL.

Wood's Smooth	No. 15-17	2 85
" "	No. 18	2 95
" "	No. 20	3 05
" "	No. 22-24	3 15
" "	No. 25-26	3 25
" "	No. 27	3 35
" "	No. 28	3 45

PATENT PLANISHED SHEET STEEL.

Patent Planished Sheet Steel. "A" $10 20, "B" $9 20

GALVANIZED IRON

Old List ..... 70&10&10%

HOOP IRON.

¾x22	¾x20	⅞x20
$3 20 100lbs.	$3 10 100lbs.	$3 00 100lbs.
1x20	1¼x19	1½x19
2 90 100lbs.	$2 85 100lbs.	$2 75 100lbs.

PAINTED CORRUGATED IRON.

8-ft. sheets, 2½x28 Ga.... per sq., $2 60

SOLDER.

XXX Guaranteed ½&½ . per lb. 20¾c
Commercial ½&½ ..... per lb. 20¼c
No. 1 Plumbers 17¾c

SHEET ZINC.

600 lb. Casks ..... base, per cwt. $6.50
300 lb. Casks ..... per cwt. 6.70
Sheets ..... per cwt. 6.90

COPPER.

Copper ..... base, 30c

TIN PIGS AND BARS.

Banca, pigs, per lb ..... 35@35½c
Straits pigs, per lb 35c
Straits in bars, per lb 37c

LEAD.

American Pig ..... $4 60@4 62½c
..... 5½@¾c

HARDWARE.

ADZES.

Carpenters'.
Ajax 50%
Blood's ..... 40&5%
Hunt's 25%
White's 12½%
Coopers'.
Barton's 20%
White's 15%
Ship.
Ajax 50%
Blood's ..... 40&5%
Hunt's 25%
White's 12½%

AMMUNITION.

Caps, Percussion—per 1,000.
F L Waterproof, 1-10s 40c
G D 35c
Eley's 52c
Cartridges.
Peters Rim Fire Ctgs ..... 50&3%
Peters Cent Fire, Pistol & Rifle 25&3%
Peters Cent Fire, Military and Sporting Ctgs ..... 15&8%
Peters Blank Ctgs, except 22 and 32, an additional 10% from above discount.
Peters Blank Ctgs. 22 cal $1 18
Peters Blank Ctgs. 32 cal., C. F.. 4 40
Peters B B Caps, Round ball $1 44
Peters B B Caps, Conical ball ... $1 85
U. M. C. Rim Fire Ctgs ..... 50&3%
U. M. C. Cent. Fire, Pistol & Rif 25&3%
Winchester Cent. Fire, Military and Sporting Ctgs ..... 15&8%
U. M. C. B B Caps, Round Ball ..... $1 75..18%
U. M. C. B B Caps, Con. Ball. $1 85 net
U. M. C. Rim Fire Shot Ctgs. 50&15&3%
U. M. C. Cent. " " " 25&15&3%
Primers.
Berdan Primers $1 00
Peters Primers 1 20
U. M. C. Primers 1 20
Winchester Primers 1 20
Shells.
Peters Empty Paper Shells, 10 and 12 gauge. League ..... 25&2%
Peters Empty Paper Shells, 16 gauge. League ..... 20&2%
Peters New Victor Nitro Shls .. 20&2%
Ideal ..... 25&7%
Peters Loaded Shells. League and Referee Semi-Smokeless. 40&1%
Peters New Victor Loaded Shells with King's Smokeless ..... 40&6%
Ideals Loaded with King's Smokeless ..... 40&10&10&1%
U. M. C. New Club, 16 gauge .... 20&2%
U. M. C. New Club ..... 25&2%
U. M. C. Nitro ..... 20&2%
U. M. C. High Base ..... 20&2%
Winchester Blue Rivals ..... } 40&1%
Winchester Yellow Rivals ..... }
Winchester Repeater ..... 20&2%
Winchester Leader ..... 40&6%
U. M. C. Loaded Shells, Black Powder ..... } 40&1% full cases
Winchester Loaded Shells, Black Powder ..... }
U. M. C. ..... } Smokeless 40&10&10&1% full cases
Winchester ..... }
Gun Wads—per 1,000.
Peters Gun Wads 18%
U. M. C. Gun Wads 18%

Powder.			Each
King's Smokeless.	kegs		$11 30
" "	½ kegs		5 80
" "	¼ kegs		2 97
" "	1-lb. cans		51
" "	1-lb. " rifle		•70
Dupont's "	50-lb. drum		22 45
" "	25-lb. kegs		11 30
" "	12½-lb. kegs		5 80
" "	6¼-lb. kegs		2 97
" "	1-lb. cans		51

Shot.
Dropshot, sizes smaller than B, 25-lb. bags, per bag $1 25
Drop shot, B and larger sizes, 25-lb. bags, per bag 1 50
Buck Shot, 25-lb. bags, per bag .. 1 50
Chilled Shot, 25-lb. bags, per bag. 1 50

ANVILS.

Trenton, 70 to 80 lbs ..... 9¾c per lb
Trenton, 81 to 150 lbs ..... 9c per lb

AUGERS.

Boring Machine ..... 65&10%
Carpenters' Nut ..... 65&10%
Hollow:
Ives' New Pattern 25%
Bonney's—list $30.00 ..... 65&10%
Stearn's, No. 1 ..... *doz.* $42 00
Stearn's, No. 3 ..... " 33 50
Post Hole.
Dalbey, 8-inch ..... per doz. $ 5 75
Digwell, 8-inch ..... " 13 00
Howe's, 6 and 8-inch .. " 12 50
Vaughan's, 4 to 9-inch " 7 00
Rafting.
Snell's ..... 50&5%
Ship.
Snell's, with or without screw ..... 40&5%

AWLS.

Brad, handled ..... per doz. $0 26
shouldered, ass'd, 1 to 4 ..... per gr. 1 10
patent, asst'd, 1 to 4 " 95
Harness, common ..... " 1 20
patent ..... " 95
Peg, shouldered ..... " 1 10
patent ..... " 40
Scratch, No. 2, handled ... " 4 50
No. 1, socket handled ..... per doz. 1 15
Sewing, common ..... per gr. 1 10
patent ..... " 95

AXES.

Boys', Handled:
Camp Fire, 3-lb., per doz $5 75
" " 4-lb., freighters', per doz 6 75
Cast Steel, good grade, pr. dz., 5 50
Pioneer, per doz 6 75
Broad:
Peerless 50%
Plumb's Canada Pattern, ½50-10-5%
" Western " 40-10-5%
Red Warrior, per doz $18 50
Firemen's, per doz $15 50
Single Bitted (without handles)
Cuyahoga Chief, per doz $6 00
Gladstone, " " 7 75
Hubbard's " " 6 50
Hunt's " " 6 25
Lippincott's " " 6 25
Mann's " " 6 25
Pioneer " " 6 75
U. S. A. " " 7 75
Valley Forge " " 6 25
Second Quality " " 5 75
Double Bitted (without handles):
Lippincott's ..... per doz $8 75
Mann's ..... " " 8 75
Pioneer ..... " " 9 25
U. S. A. ..... " " 11 00
Valley Forge ..... " " 8 75
Ship, Blood s. ..... " " 18 50

BALANCES, SPRING.

Frary's 50%
Pelouze 20%

BAGS, PAPER NAIL.

Pounds.. 3 5 10 16 20 25
Per 1,000. $1 60 1 85 2 60 3 40 3 90 4 75

BARS, CROW.

Pinch or Wedge Point ..... cwt. $3 50

BEAMS—SCALE.

P. S. & W Co 40%

BEATERS.

Carpet, Rattan ..... per doz $2 40
Raymond's Steel Wire, " " 80
Woven Wire, No. 4.. " " 1 10
Egg.
Dover Pattern ..... per doz. $0 70
Genuine Dover ..... " 0 90
Mammoth Dover ..... " 1 75
Lightning ..... " 0 84
Lyon's (standard size) " 1 75
Whip, French ..... " 1 35
Spiral ..... " 0 40
Spoon ..... " 0 40
Surprise ..... per gro. 1 45

BELLOWS.

Blacksmiths' ..... 70&5%
Hand, 8 in. ..... per doz. $ 6 85
10 in ..... " 8 40
Molders', 12 in ..... per doz. 13 00

BELLS

Call.
2¾ in. nickeled bell . per doz. $ 1 35
2¾ in. " brass bell " 3 60
3 in. " " " " 7 50
3 in. " silver alloy bell, ... per doz. 16 50
4½ in. " brass bell and base ..... per doz. 14 50
Cow.
Ordinary Goods ..... 70&5%
High Grade ..... 60&10%
Jersey ..... 70&10%
Door.
Bigelow Automatic .. per doz. $9 50
Rotary.
3 in. bronzed iron bell " 5 25
3 in. nickeled " " " 7 50
3½ in. " " " " " 9 00
Hand.
Hand Bells, Polished .... 60@60&10%
White Metal 50%
Nickel Plated 40%
Swiss ..... 60&5%
Silver Chime 33⅓%
Miscellaneous.
Church and School, Steel Alloy, ... 50, 10 & 5%
Farm, lbs... 40 50 75 100
Each. $1 10 $1 30 $1 85 $2 65
Miscellaneous Cont.
Strapped Sheep ..... per doz. $1 90
House Gong ..... 40&5%
Sleigh, Round, Loose ..... 40&5%

BELTING

Leather—List dated Nov. 12, 1901.
Standard 75%
Eclipse ..... 60&10%
Extra Grade ..... 50&10%
Rubber—
Standard ..... 75&5%
Amherst ..... 65&10%
Extra ..... 60&2½%

BEVELS—TEE.

Stanley's, rosewood handle, new list ..... 40&5%
Stanley' ron handle ..... 40&5%

BINDING—OIL CLOTH.

Zinc ..... 75, & 10%
Brass 75%
Brass Plated ..... 75 & 10%

BITS.

Auger.
Extra Double Spur ..... 70&5%
Ford Improved ..... 40&10%
Irwin ..... 30&10%
New Jenning's ..... 50&10%
Russell Jenning's ..... 25&7½%
Clark's Expansive ..... 50, 10&5%
Steer's " Small ..... new list $22.00
Irwin Car ..... 30&10%
Snell's Car ..... 60&5%
" Ship ..... 40&5%
" " Auger Pattern Car .. 40&5%
Center ..... 40&10%
Countersink—
Wheeler's ..... per doz. $1 60
American Snail Head " 0 70
" Rose " " 0 80
" Flat ..... " 0 70
Buck Bros'. Flat ..... " 2 60
German ..... " 0 70
Dowel, New Jennings ..... 40&10%
Gimlet—
Standard Double Cut 50&5@50&10%
German Pattern ..... per doz. $0 48
Gouge ..... " 0 80
Spoon ..... " 0 80
Countersink ..... " 1 30
Reamer—
Buck Bros.' ½ Round. " 2 75
" " Square .. " 2 50
Standard ½ Round ... " 0 75
" Square ..... " 0 75
German Octagon ..... " 0 75
Screw Driver—
Round Shank ..... " 0 48
" " extra quality " 1 40
Square Shank ..... " 1 10

BLACKING—STOVE. (See Polish.)

BLADES—SAW.

Butchers'—
Standard ¾ & 1¼ in ..... 60&5%
Clock Spring ..... 60&5%
Star 20%
Hack—
Disston's ..... 25&5%
Griffin's ..... 35&5%
Star 20%
Wood—
Jackson's ..... per doz. $2 25
Disston's—No. 6, 16, 26 & 045, $4 20; No. 11, $6.30.
W. M. & Co.'s No. 20 .. per doz. $5 50

BLOCKS.

Snatch—
Wooden ..... 50&10%
Steel ..... 40&10%
Tackle—
Wooden ..... 70&5%
Steel ..... 50, 10&5%

BOARDS.

Stove 40%
Wash—
Anchor ..... per doz. $1 60
Globe ..... " 2 10
Banner ..... " 2 60
Crystal ..... " 3 15
Brass King ..... " 3 15
Nickel Plate ..... " 3 15
Enamel King ..... " 3 15

BOBS—PLUMB.

Carpenters', 8¼ oz. iron .. pr dz. $0 65
1½ lb. " " " 1 60
2¾ lb. " " " 1 80
13 oz. lead ..... " 3 00
6½ oz. brass ..... " 3 30
Mason's, 3 lb. lead ..... " 4 00

BOILERS—FARM.

Profit ..... 30&5%
Solon ..... 35&5%

BOLTS.

Carriage, Machine, Etc.
Carriage ..... 65&10%
Machine ..... 60&10%
Elevator ..... 50&10%
Plow ..... 45&5%
Stove ..... 75&10%
Tire 75%
Wagon Box Strap ..... 70&10%
Mortise Door—
Gem ..... 50-10&5%
Ives' ..... 50&10%
Barrel—
Cast 50%
Wrought ..... 50&5%
" Bronzed ..... 75&5%
Flush, Wrought, B. K. ..... 40&5%
Spring—
Wrought ..... 75&10%
" Brass ..... 75&10%

BOLTS—CONTINUED.

Square—
Cast.....40%
Wrought.....60-10&10%

BORERS.

Angular, Miller's Falls, per doz $12 75
Bung, Common Ring with Handle—
Inches..... 1½ 1¾ 2
Per doz $6 00 6 90 8 10
Enterprise Mfg. Co., No. 1 List $1.50; No. 2, $2.00 each....25-10&5%

BOXES.

Mail, No..... 5 10 20
Per doz..... $3 65 10 50 13 00
Mitre—
New Langdon.....15&5%
Olmsted's 15%
Stanley's.....30%
Seavey's .....per doz 8 00
Twine, Nos... 20 30 25 121
Per doz $4 50

BRACES.

Common Ball.....$1 35@1 45
Barbers' Pattern .....60&10%
Fray's Gen. Spofford's.....50&10%
" No. 66 to 146.....50&10&7½%
P. S. & W. Co.'s Peck's Adjustable.....50-10&5%

BRACKETS.

Hay-Rack, Wenzelmann's No. 1, $12.50; No. 2, $13.00 per doz.
Shelf—
Cast Iron, Plain .....50&10%
Stanley's Wrought Steel..... .....70-10&2½%
Wire.....75-10&5%

BROILERS.

Wire .....70&10%
Crown, Self-Basting, No.80..doz. $2 90

BUCKETS.

Pump Rubber—
Wychoff.....per gr. $4 75
Cooper..... " 5 50
Champion ..... " 7 50
Victor ..... " 9 50
Star..... " 5 00
IXL... ..... " 6 75
Well—
Galv'd Qts..... 8 10 12
Per doz $2 50 2 85 3 15
Wooden, top ear, plain, per doz 3 25
" " swivel " 4 65
" side-strap, plain " 3 35
" " swivel " 4 75

BUCKS, SAW.

Folding .....per doz $1 75

BURS, RIVETING.

Copper Burs Only.....35-10&5%
Tinners' Iron Burs Only.....70%

BUTTS.

Cast-Iron.....65&10%
Wrought Brass.....20%
Wrought Steel Bright—
Nos. 800, 804, 808, 810, 814 and 834 ..... 70-10-10&5%
Nos. 838, 840 and 842 ...70-10-10&5%
Nos. 822 and 828..... 75-25-10-10&5%
Wrought Steel, Japanned—
Nos. 731 and 727.....70&10&10%

CALIPERS.

Double .....40&10%
Inside and Outside.....40&10%
Wing.....40&5%

CALKS.

Logger's Boot,(Lufkin R. Co's.) .....per M $3 65
Toe.
Shoenberger.....per lb. 5c
Bessemer ..... " 5½c
American ..... " 7¼c
Swedes..... " 8¾c

CANS.

Cheese Factory Can Stock—
Gallons.... 15 20 30 40
Per set....$2 90 $3 15 $3 75 $4 75
Milk Cans—Gals.. 5 8 10
Elgin Pat., each, $ $2 00 $2 25
Iowa " 1 65 1 90 2 10
New Elgin" 2 10 2 25
New York " 2 10 2 35
Oil—
1 Gal. glass, Daisy....per doz. $2 35
1 " cushioned " 3 90
Star, gals..... 1 2 3
Per doz..... $1 85 $3 00 $3 90
Per doz.
Champion Faucet, 5 gallon...$ 5 65
Sterling Tilting....5 " ... 8 25
"High C" Pump...5 " ... 9 25
Eureka Pump.....5 " ... 12 25
Wood Jacket.....50-10&5%

CAPS—GUN.

See Ammunition.

CARRIERS.

Hay—
Myers' Imperial.....each $3 40
" Clover Leaf..... " 3 40

CARTRIDGES.

ee Ammunition.

CASTERS.

Acme—Ball Bearing.....35%
Bed.....65&10%
Common Plate—
Brass wheel..... .....60&10%
Iron and porcelain wheel.....60%
Philadelphia Plate.....70%
Martin's.....40-10&5%
Payson's..... 75%
Tucker's—Wood and iron wheel..70%
" Rubber wheel.....65&10%

CATCHERS—GRASS

Lieder's No. 1.....per doz, $6 25
Eureka..... " 4 25
Ideal No. 4..... 50

CHAIN AND CHAINS.

Breast Chains—
Doubleslack.....doz. pairs $5 00
With Covert snaps " 4 75
" slide..... " 2 90
Without slide..... " 2 60
Bright Ox Chains—
5-16in. $6 75: ⅜ in. $5 75 per 100 lbs.
Bright Coil Chain—
American, new list.....33⅓%
German..... ...60-10&5
Triumph, new list.....30%
Cable Coil Chain—
Inch..... 3-16 ¼ 5-16 ⅜
Per 100 lbs....$9 75 $7 25 $5 90 $4 75
Inch ..... 7-16 ½ ⅝ ¾
Per 100 lbs...$4 60 $4 50 $4 35 $4 25
Cable Log Chain—Advance 25c per 100 lbs. on Cable Coil.
Cow Tie Chains—
American 2 toggle.....40-10 & 5%
" " toggle and snap, 40-10&5%
" " open and closed ring.....40&5%
Halter Chains—
American, new list.....33⅓%
German.....60-10&5%
Niagara, new list.....40&5
Triumph, " 30%
Jack Chain—
Brass.....60%
Iron.....60%
Picture Chains—
Light Brass, 3 ft.....per doz. 63c
Heavy " 3 " ..... " 75c
Pump Chain—Galvanized per 100 lbs..... $4 45
Safety Chain—Brass.....60&10%
Stretcher Chains—
5-16 in., $7.75—⅜ in., $7.00 per 100 lbs.
Tie-Out Chains—Browns.....70&10%
Trace Chains—Western Standard—
6½— 6-2.....per pair 26c
6½— 8-2..... " 30c
6½— 8-3..... " 29c
6½—10-2..... " 35c
7 —10-2..... " 40c
Add 2c per pair for Hooks.
" 2c " for Twist Link.
Wagon Stay Chains—
Inch ¼ 5-16 ⅜
Per 100 lbs. $6.50 $8.00 $5.25
Well Chains—
With Swivel.....per doz. 95c
Without " ..... " 80c

CHALK-CARPENTERS'.

Blue.....per gross 58c
Red..... " 48c
White..... " 38c
Common White Sch'l Crayon..... " 5½c
D. M. Steward Mfg. Co. Metal Workers' Crayons, ...gr.$2.50
Soapstone Pencils, round flat or square.....gr.$1.50
Rolling Mill Crayons.gr.$2.50
Railroad Crayons (compositions) gr.$2.00
Case lots 20%

CHARCOAL.

In barrels .....per bu. 26c

CHECKS-DOOR.

Blount 30%
Blum-Jap'd, $6.25; Brzd., doz... $7.00
Columbia.....50, 10&5%

CHISELS.

Box—
Inches..... 10 12 14
Round....per doz. $2.10 $2.25 $2.75
Flat.....per doz. 2.85 3.60 4.20
Cold—
Good quality.....per lb. 12@ 20c
U.S.A..extra quality..per lb. 28c
Socket, Framing and Firmer—
Barton's..... 20%
P. S. & W. Co's..... 70%
For beveled back, add..per doz..... 60c
Tanged, Firmer—
P. S. & W. Co's.....35&5%
With Handles add... per doz. 60c
Choppers, Enterprise Meat—
No. 12.....$2 75
No. 22..... 4 50

CHUCKS-DRILL.

Standard Tool Co.'s 40%
Goodell's, for Goodell's Screw Drivers.....per doz. $6.25
Yankee, for Yankee Screw Drivers..... 5.00

CHURNS.

Anti-Bent Wood, Gal.. 5 7 10
Each $3.85 4.10 4.30
Belle, Barrel..... 70%
Common Dash, Gal.... 4 5 7
Per doz..... $6.75 7.50 8.00
Union, Gal..... 5 7 10
Each $3.65 3.90 5.00

CLAMPS

Adjustable—Martin's 40%
Carpenters'—Steel Bar..... 30%
Carriage Makers'—P. S. & W. Co.'s..... .....40, 10&5%
Hose—
Sherman's, brass, ¾ in., ...per doz. 33c
Double, brass, ¾ in...per doz. 65c
Saw Filers—
Disston's list, $30.00..... 30%
Stearn's, No. 0, $3.50, No. 1, $11.50, No. 3, $5.50 doz.
Wentworth's..... 40%

CLAWS-TACK.

Cast, wood hdle...per doz., 45@ 60c
Forged steel, wood handle .....per doz. 80c
Solid Steel.....per doz. $1.60
Giant..... .....per doz. .60

CLEANERS.

Pot--Wire.....per doz. $0.45
Side-Walk—Steel.....per doz. 3.15
Window—
Peerless.....50, 10&5%
XLCR.....65&10%

CLEAVERS.

Butchers'—F. R. Plumb's.....35&5%
Family—Ajax, In..... 6 7 8
Per doz $5.50 5.75 6.25

CLEVISES.

Malleable.....per lb. 4¼c

CLIPS.

Axle.....65&5%
Damper—
Standard .....per doz. $0.70
Troy ..... " .38
Hame..... " .30

CLOTH.

Emery—
Ajax.....50&10%
B. & A.....50%
Hardware Wire--full rolls (100 ft.)
2 to 8 mesh black, per 100 sq. ft. $1.85
9 to 12 " " " " 2.15
2 to 8 " galv, " " 2.70
7 and 8 " " " " 3.25
An extra charge is made for 50 ft. lengths, and a still further advance for smaller pieces.
Screen Wire--
12 mesh, painted, per 100 sq.ft. $1.10
14 " " " " 1.85

COCKS--BRASS.

Compression Bibb.....60&10&5%
" Lock.....60&10%
Lever Bibb.....60&10%
Liquor .....per doz..$8 75
Racking.....60&10%

COFFEE MILLS.

Enter. Mfg. Co., list Jan 17, '93...25%
Parker's.....50%
Arcade.....60&10%

COLLARS--STOVE PIPE.

Inches 5 6 7
Plain Tin....per gr.$2.50 $2.80 $3 75
Japanned Tin, " 3.90 4.20 5.40
Lacquered Brass" 3.30 3.60 4.80

COMBS--CURRY.

Nos. 000 20 321 230 417 416
Per doz.$0.32 .80 1.00 .95 .80 1.00
Nos. 531 533 530 535 545 390
Per doz.$0.96 1.20 1.10 1.65 1.40 1.30

COMPASSES.

Carpenter's..... 70%
Pencil--Faber's.....per doz.$1.00

COOLERS--WATER.

Galvanized Lined—Lever Faucet.
Gal. 2 3 4 6 8
Each $1.35 1.65 2.00 2.35 2.95
Galvanized Lined—Telegraph Faucet
Gal. 2 3 4 6 8 10 15
Ea$1.65 2.00 2.35 2.65 3.30 3.65 4.90
Porcelain Lined—
Gal. 3 4 5 6 7 8 10
Ea$4.50 5.75 7.00 7.75 8.60 10.40 12.25

COPPER—SEE METALS.

COPPERS.

Soldering--1 to 2 lb.....per lb. 25@29c
3 lb. and larger..... " 23c

CORD.

Picture--White Wire--List October 1900.....80&10%
Sash--
Baltic Braided Flax...per lb. 18½c
India Hemp, cable laid " 13 c
" " hawser " " 12 c
" " plain " " 13½c
Italian " cable " " 21½c
Russian " " " " 17 c
Samson, white " 31½c
" spot " 30½c
Silver Lake, white " 24½c
" " drab " 31½c

CORKSCREWS.

Humason & Beckley.....33⅓%
Walker's.....33⅓%
Williamson's Regular.....50%
Williamson's Forged Worm.....50%

COTTERS--SPRING.

5-16 in. and smaller..... .....80&5%
⅜-in. and larger.....75%

COUPLINGS--HOSE.

Brass .....per doz. $1.00
Brass Plated..... " 85

COVERS, WAGON--SEE TENTS.

CRADLES--GRAIN.

Morgan's Grapevine ..per doz.$21 00

CRAYONS--SEE CHALK.

CROOKS--SHEPHERDS'.

American Pattern .....per doz. $6 75
Montana " ..... " 8 00
Scotland " ..... " 8 00

CROW BARS.

Pinch or Wedge Point....per lb. 3½c

CUTTERS.

Meat--
Enterprise Nos. 5, 10, 12, 22, 32, and 42..... .....25%
No. 100, list, $18.00.....40&10%
Nos. 2 and 4.....35%
Ideal.....per doz. $9.75
Universal....No. 1 2 3
Per doz.....$10.75 $13.00 $18.00
Pipe-Stanwoods No. 1 2 3
Each.....$ .85 1.50 4.00
Slaw and Crout--
3-knife Crout.....per doz. $9.25
1 " Slaw..... " 1.35
2 " " ..... " 2.00
Washer..... " 7.75

DAMPERS—STOVE PIPE.

Standard.....50&10%
American.....40&10%

DIES--STOCKS AND

Discount.... ..... 40%

DIGGERS—POST HOLE.

Atlas .....per doz. $8.50
Eagle..... " 6.25
Eureka..... " 6.50
Hercules ..... " 10.25
Ryan's..... " 17.00
See also Augers—Post Hole.

DIVIDERS.

Wing 70%
Extension Wing.....35&5%

DOORS--SCREEN.

⅜ in. 4 panel painted per doz. $ 6.75
½⅛ " " " " 7.35
in. 4 panel natural pine, fancy.....per doz.. 11.25

DOOR HANGERS—BARN.

Single Flange, D. B. Rail, ...per 100 ft. 1 60
Novelty Check Back, ...3 in 4 in 5 in 6 in
Per doz. pairs, $2.60 $3.90 $4.95 $6.25

DRILLS.

Bit Stock.....60%@65&5%
Blacksmith's Twist.....60%
Breast--
Common.....each, $2.25
Millers' Falls..... " 2.10
Hand--
Goodell's Automatic--per doz.
No. 01 No. 03 No. 3 No. 20
$7.75 $12.50 $14.25 $11.00
Goodell's Single Gear per doz. $16.00
Millers' Falls " " " 12.50
" " Double " " 15.00
Reciprocating—
Goodells'.....per doz. $17 00
Bit Stock.
Standard List....60&5%@60%@10%

DRIVERS--SCREW.

Standard.....65&10%
Ajax.....70&5%
Champion.....50%
" Pattern.....75&5%
Clark's Interchangeable.. .....33⅓%
Reed's Lightning.....50%
Goodell's Spiral.....50&10&5%
Yankee Ratchet.....50%
" " Spiral.....50&10&5%

ELBOWS.

Conductor.....60%
Adjustable Stove—In. 5 6 7
Smooth....per doz. $0.95 0.95 1.40
Plan'd..... " 2.10 2.35 3.00
Corrugated Stove—In. 5 6 7
Smooth....per doz. $0.95 .95 1.40
Pol'd..... " 1.70 1.75 2.60
Plan'd..... " 2.60 2.85 3.50
Four-Piece Stove—In. 5 6 7
Smooth....per doz. $0.57 .60 .93
Pol'd..... " 1.00 1.05 1.50
Plan'd..... " 1.50 1.70 2.00

EMERY--TURKISH.

Size .....5-lb. pkgs. ½ kegs, kegs.
No. 60 to 150, ℔ lb. 6¼c 4¾c 4½c
Flour.... . " 5¼c 3¾c 3½c

ENAMEL—IRON.

English, ½-pt. cans...per doz. $1.50
Nubian, " " ... " 1.80
O. V. B., " " ... " 1.35
Peerless 1 50

EXTRACTORS--PIG.

See Forceps, Pig.

EYES.

Bright Wire Screw—See Goods, B.W.
Drifting Pick .....60&10%
Hooks and--
Brass.....60&5%
Iron .....65&10%

FASTENERS, STORM SASH.

Moore's.....per doz. $0 80
Schroeder's..... " 1 50
Sensible..... " 1 10

FASTENERS, BLIND.

Zimmerman's.....Net

FAUCETS.

Angle Plug.....per doz. $0 84
Brass--Andrew's .....60&10%
Petroleum.....60-10&5%
Wood--Cedar .....40&50%
Cork Lined.....60%
Metal Key.....65&5%
Measuring--Enterprise.....35&5%
See also Cocks.

FILES AND RASPS

Arcade .....75&5%
Black Diamond.....70&10%
Disston's.....75&5%
Great Western.....75&5%
Keystone Mill.....80&20%
Kearney & Foote .....75&5%
New American .....75&10&5%
Nicholson's .....70&10%
Royal Mill .....80@20%
N. S. A.....70&10&5%

FILTERS.

Improved Natural Stone.$2 50@13 50
Subject to large discounts.

FORCEPS—PIG

Barber's.....per doz., $7 25
Superior..... " 4 75
Whisson's Imp..... " 6 00

FORKS

Barley—
Steel.....60%, 10&5%
Wood, 4 tines, $5.25; 6 tines, $6.25 doz
Coal.....70, 10&2½%
Coke .....70, 10&2½%
Cottonseed.....70, 10&2½%

FORKS—CONTINUED.

Hay—
Diamond, 2 tine.....65, 10&5%
" 3 " .....60, 7½, 10&5%
" 4 " .....56½, 10&5%
Golden Eagle, tine 60,7½,10,10&5%
" " " ..66⅔,10,10&5%

Header—
Diamond, 2 tine.....67½&10&5%
" 3 " .....60, 20, 10&5%
" 4 " .....66⅔&10&5%
Golden Eagle, 4 tine.....10&10&5%

Manure—
Diamond .....60, 20, 10&5%
Golden Eagle.....60, 20, 20&5%

Ore.....70&10%

Potato—
Digging..... .....65&10&5%
Scoop .....70&10%

Spading—
Diamond .....70, 5, 10&5%
Golden Eagle.....70, 5, 10, 10&5%

Hack Saw— FRAMES
Crown.....per doz., $ 8 75
Miller's Falls..... " 10 00
Star..... " 2 85

FREEZERS—ICE CREAM

Arctic—Qts... 1 2 3 4 6
Each.....$1 10 1 30 1 50 1 75 2 30
Qts..... 8 10 12 15
Each.....$2 85 3 75 4 50 5 20

White Mountain, with Crank—
Qts..... 1 2 3 4 6
Each.....$1 20 1 65 1 90 2 10 2 70
Qts..... 8 10 12 15
Each.....$3 60 4;60 5 90 7 00

GATES.

Molasses and Oil.
Perfection.....40&10&5%
Stebbin's.....75&10&5%

GAUGES.

Butt and Rabbet.
Stanley R. & L. Co.'s ..20&10&2½%

Cream Pail, Fairmont, per doz..$3 75

Marking, Mortise, etc.....
.....50&10%@50&10&5%

Saw—Atkin's sgle. 55c, dbl. 80c pr doz.

Wire.
Disston's.....25%
P. S. & W. Co.'s.....20%

GIMLETS.

Discount..... .....40@40&10%

GLASS—WINDOW.

All sizes, single strength. ....90&10%
" double strength ....90&10%

GLASSES—LEVEL.

Stanley R. & L. Co.....50&5%

Bulk. GLUE
B Amber .....per lb 9¾c
A White.....per lb 12½c
H. S. Amber.....per lb 17 c

Liquid.
Eagle .....40 %
LePage's—
List "A".....37½%
List "B".....33⅓%
List "C".....25 %

GOODS.

Bright Wire..... 80-10&5%

GREASE, AXLE.

Wood Boxes.
Diamond.....per gr. $4.75
Frazer's..... 9.25
Hub Lightning..... 5.25
Paragon..... 6.75

Wood Pails.
Frazer's, 15 lb. 78c, 25 lb. $1.30 each.
Hub Lightning, 15 lb. 52c, 25 lb. 68c each.

Tin Cans.
1 lb. Frazer's carriage, pr. doz. $1.30
1½ lb. " wagon.. " 1.30
3 lb. " " " 2.40
5 lb. " " " 3.50

GRIDDLES

Soapstone.....40&5%

GRINDSTONES

Family—In..... 7 8 9
Per doz $7 75 8 75 10 00

Loose.
Per ton .....$20 00@$21 00

Mounted—
Ball Bearing..... 1 2 3
Each $3 10 2 90 2 75
Common Bearing.. 1 2 3
Each $2 85 2 65 2 50

Schofield's—
Auto.....each, $3 30
Bitreadle..... " 3 10

HAFTS—AWL

Brad—Common.....per doz., $0.18

Peg—
Common..... " 21
Patent, plain top..... " 46
" leather top .. " 52

Sewing—
Common..... " 21
Patent..... " 52

HALTERS

Jute Rope.....per doz., $0 80
Sisal Rope... ..... " 1 05
Web ..... " 2 10
Leather, rope tie..... " 6 25
" leather tie... " 8 25

HAMMERS—HANDLED

Blacksmiths' Hand
Maydole's .....40&10%
Plumb's .....50&10&5%

Engineers'—
Maydole's .....40&10%
Plumb's Oil Finish.....60%
" Polished .....50%10&5%

Farriers'.
Maydole's ....35&5%
Plumb's .....40&5%

Machinists'.
Maydole's ..... 40&10%
Plumb's. .....50&10&5%

Nail.
Ajax.....per doz $5 75
Calumet..... " 3 40
Cast.....per doz $1 10@$1 50
Maydole's .....30&7½%
Plumb's.....40&5%
Vulcan .....35&5%

Riveting.
Maydole's.....35&5%
Plumb's .....40&5%

Shoe. Plumb's.....30&5%
Cast.....per doz 75c

Tack.
All Iron ....per doz $0 35
Pol'd Iron, Hickory hdl " 0 52
Mall. Iron, Inlaid..... " 1 50
Magnetic 1 2 3
Per doz..... 70c 80c 95c
Magazine.....per doz $4 75

HAMMERS—HEAVY.

Heavy Hammers and Sledges.
Under 5 lbs.....70&10%
5 lbs. and over 75%

Masons'—Single & Double Face..75%

Auger. HANDLES.
Common Ass'd.....per doz $0 36
Peck's Adjustable.... " 2 10
Roger's " .... " 4 15
Ives' " ....per set 1 25

Axe.....40%

Chisel.
Hickory, Tanged Firmer, Assorted, 24c; Large, 26c per doz.
Hickory, Socket Firmer, Assorted, 18c: Large, 21c per doz.
Applewood, Tanged Firmer, Assorted, 27c; large, 36c per doz.
Applewood Socket, Firmer, Assorted .....per doz 24c

Coal Pick 40%

Drifting Pick.....40%

File, assorted 13c. large 16c per doz.

Hammer.
Adze Eye.....per doz 42c
Blacksmiths'.....per doz 45c@65c
Machinists'..... " 39c@58c

Hatchet.....per doz 42c

Hay and Manure Fork....50&5%@60%

Hoe and Rake .....50&5%

Saw, Plain 72c, Varnished 68c per dz.

Screw Driver, Assorted 42c, Large 48c per doz.

Shovel and Spade .....50&5%

HANGERS

Barn Door—
King .....per doz. prs., 5 00
Monarch .....60&10%
"Never Jump" Hinge.....50&10%
Peerless, Loose Axle.... ..60&10%
Perfection, Roller Bearing..70&5%
Phœnix, Roller Bearing... 70&5%
Prouty .....per doz. prs., $5 50
Rival. ..... " " 3 90
Superb ..... " " 6 25
Safety Flexible " " 7 50
Wagner's Adjustable.....70@10%
Warehouse 60%

Parlor Door—
Acme.....per set $3 75
Ives' Improved ..... " 2 50
Lane's Standard..... " 3 50
" New Model.... " 2 80
Prouty..... " 3 00
Lundy.....50&10%

Eave Trough—
Baker's.....per gr., $2 60
Imperial 10%
Wire 25%

HASPS.

Hinge, Wrought.....50, 25, 10, 10&5%
With Staples—See Staples.

HATCHETS.

Ajax .....40&10&5%
Blood's.....40&10%
Cast Claw.....per doz $1 50@$1 75
Cast Shingling.... " 1 20
Duffy's Barrel.....per doz 17 50
Germantown .....35&5%
Hammond's 40%
Plumb's .....40&10&5%
Plumb's Warehouse.....40%
Roger's Ideal.....per doz $5 25
Underhill's Star Lath.....40%
S. A.....30&10%

HAY RACK BRACKETS.

Wenzlemann's No. 1, per doz...$12 60
" No. 2, " ... 13 20

HINGES.

Blind.
Clark's Gravity, per doz sets....80c
Parker's..... .....65%
Shepherd's Noiseless, for Wood casing.... .....doz. $1 05

Gate.
Clark's, 1 2 3
Hgs & Ltchs, dz., $2 35 $2 60 $3 60
Hinges Only, " .. 1 70 1 90
Latches Only, " .. 0 70 0 75
Knuckle.....per doz prs $6 00
Leed's..... " sets 6 75
Superior ..... " prs 9 25

Spring.
American.....25%
Bommer Bros. Ball B'rng Floor 40%
Bommer Bros. Spring Hinges .40%
Chicago.....25&5%
Clover Leaf.....per gro 60
Columbia Dbl. Acting....40&10&5%
Gem 25%
Ideal Detachable.....per gro $12 00
New Idea ..... " 9 00
Oxford.....20%

Wrought Iron.
Light Strap Hinges..70-25-10-10&5%
Heavy Strap Hinges.....
.....75-10-25-10-10&5%
Light T Hinges....66⅔-25-10-10&5%
Heavy T Hinges....60-5-25-10-10&5%
Extra Heavy T Hinges.....
.....75-25-10-10&5%
Cor. Heavy Strap..75-10-25-10-10&5%
Cor. Ex. Heavy T....75-25-10-10&5%

Screw Hook and Strap.
6 to 12in.....per 100 lbs. $4.00
14 to 20in ..... " " 3.75
22 to 36in ..... " 3.50

Screw Hook and Eye.
⅝ to 1in .....per 100 lbs. $6.50
⅜in ..... " " 8.00
½in ..... " 10.00

HOES.

Garden.....75&10&5%
Grub .....65&5%
Hazel.....per doz $6 25
Ladies' and Boys'.....70, 10, 5, 10&5%
Mortar.....75, 7½, 10&5%
Planter's Eye.....60&10&2½%
Weed .....70, 10, 10&5½%

HOOKS.

And Eyes.
Brass .....50&10&5%
Iron..... .....65&10%

Awning.....per gro $1 50

Belt.....75&5%

Bench—See Stops, Bench.

Box, In. 6 8 10 12
Doz.. $1 25 $1 60 $1 70 $2 25
Humason & Beckley's...pr dz $2 40
(See Goods, Bright Wire.)

Bush.
Common Axe Handle
..... per doz $7 00@$8 50
Hamilton Pattern.....per doz $7 25

Chain—In. ⅛&5-16 ⅜ 7-16 ½
Per 100 $7 50-7 75 $9 50 $11 25 $12 00

Clothes Line.
Japanned.....per doz 21c@22c
Galvanized..... " 35c

Coat and Hat.
Cast Iron.....per gro 72c@$1 00
Gem Wire.....65%

Conductor.
Malleable.....50&10%@50&10&5%
Wrought.....40&10%@50%

Corn.
Common, unpolished, per doz. $1 30
" polished... " 1 70
"Cut Easy," .....per doz. 2 65
Clyde's. ..... " 2 40
Brooke's..... " 2 65

Gate.—See Goods, Bright Wire.

Grass.
Common, Nos. 2 3 4
Per doz..... $1 70 $1 75 ——
German .....per doz $1 90
Little Giant..... " 3 10
Wood's..... ... " 1 30

Hammock.
Common..... " 21c
With Plate..... " 36c
With Screw..... " 36c
Piggot's..... " $1 05

Lambrequin or Drapery...per gro 21c

Picture.....50%@50&10%

Potato and Manure.....70&10&7½%

Screw. Brass.....80&20%
(See Goods, Bright Wire.)

Seat Spring .....per lb 6½c

HOOPS—TUB.

Ever Ready..... per case $1 65

HOSE—GARDEN.

Ply 3 4 5 6 8
Black, pr ft. 7½c 8½c 9¾c 10¾c 12½c
Cotton, 3 ply.....per ft 6¾c
Red, 3 ply ..... " 7¾c

HUSKERS.

Boss.
Nos. E A B P PX
Dz.$1 85 $2 00 $1 95 Gr.$5 90 $5 20
Nos.2000 3000 4000 O OX
Gr.$3 10 $6 75 Dz.$1 15 $2 20 $1 65

Brinkerhoff's .....per gro 14 50

Harrington..... ....per gro 4 20

Ideal—Nos. 102 101 100
Per doz..... $1 35 $2 50 $2 75

Johnson's ....per gro 7 75

IRON.

See Metals—First column.

IRONS.

Curling.
Common ....per doz 33c@48c
Princess.....per doz $0 60
Yale..... " 0 84
Oxford..... " 1 10
Ruby ..... " 1 50
Tourist, Folding ..... " 0 90

Pinking..... " 0 60

Plane.
Wood Bench.....20&5%
Stanley R. & L. Co. (new list)25&5%

Sad.
Charcoal.....per doz $11 25
Common, Polished, per 100 lbs 3 50
" Nickel Plated, " 4 75
Chinese Polishing.....per doz 7 60
Laundry, No. 1, $5 75; No. 2, $6 25 per doz.
Mrs. Pott's.
No. 50 J, Enterprise...per set 82c
No. 55 J, " ... " 79c
No. 50 T, " ... " 85c
No. 55 T, " ... " 82c
No. 50, Howells ..... " 77c
No. 55, " ..... " 74c
Tailors' Sad .....per lb 4¼c
" Geese..... " 4¼c

Tuyere.
Single Duck Nest.....per doz $5 25
Double " " ..... " 6 25
Sutton.....each 2 60

JACKS.

Locomotive .....75&5%

Wagon.
Meeker's .....per doz $11 25
Miller's No. 2 ..... " 7 75
Winner..... " 7 75

KETTLES.

Brass.....30%
Caldron.....50%
Copper.....per lb 26c
Maslin.....:65&10%
Sugar .....50&10&5%

KNIVES.

Best Topping.
Clyde, 9-in. Scimiter Blade.dz $4 25
" 12-in. Straight " .dz 2 50

Cooper's Hoop ... .15%

Corn.
Acorn.....per doz $2 65
Ajax..... " 2 25
Clipper, Light, $1 75; Heavy, $1 90 per doz.
Disston's.....per doz $3 15
Easy ..... " 7 75
Rugged Razor ..... " 2 40
H. S. Earle's ..... " 3 15

Drawing.
Standard.....70%
Adjustable 30%
Barton's Carpenters'.....10&5%
" Folding Handle....25&5%

Hay.
American, Sickle Edge...doz $10 25
Canton, Sickle Edge..... " 8 25
Heath's..... " 8 25
Lightn'g, Holt's Genuine " 6 50
Lightning Pattern..... " 6 25
Wadsworth's Sp'r Point. " 8 75

Hedge.
Ajax, Heavy, $5 75; Ex. Heavy, $7 75 per doz.

Mincing.
Common, Single .....per doz 48c
" Double..... " 65c
Streeter, 4 Blade, $1 30; 6 Blade, $1 90 per doz.

Putty.
Common.....per doz 84c
Goodell's.....per doz $1 30@$1 80
Russell's. ..... " 1 75@ 2 25

KNOBS.

Base, 2½-in. Maple, Rubber Tip,
.... per gro $1 00

Door, Mineral.....per doz 0 80
Porcelain ..... " 0 90
Jet..... " 0 80

Picture.....60&10&5%

LADDERS.

Common Long .....per ft 8½c@13c

Extension .....per ft 10½c

Step.
Common..... " 6½c
" With Shelf, add 10c.
I X L.....per ft 17c
Miller's Household. per ft 13c@15c

LANTERNS.

Bull's Eye Police.
3-in Flash Light.....per doz $6 00
2¾-in Regular..... " 4 00
3-in Regular..... " 5 00

Tubular, Berger.....40&10&5%

LEADERS—CATTLE.

Nos. 1 2 3
Per doz.... $0 70 $0 85 $3 75

LEATHER—LACE.

Cut .....50&10%

Sides, Ex. Quality.....per sq ft 20c

LEATHERS—PUMP.

Valve and Plunger.....50%

LIFTERS.

Stove Cover.
Japanned.....per gro $2 75
Coppered..... " 3 60
Chilkoot..... " 4 75
Devore's..... " 5 50
Zero ..... " 3 90

Transom, Payson's.....70& 10%

LINES.

Chalk, Twisted in 20-ft hanks.
Nos. 15 14 13 12 11
Per doz.. 10c 12c 17c 22c 29c
Twisted in 50-ft balls.
Nos. 1 2 3 4
Per doz..... 24c 30c 35c 44c
Braided in 20-ft hanks.
Nos. 0 1 2
Per doz..... ..... 23c 26c 32c
Masons', in 100-ft hanks...doz $1 0

Clothes.
60-ft Jute .....per doz $0 90
72-ft " ..... " 1 00
60-ft Sisal ..... " 1 50
72-ft " ..... " 2 00
60-ft Cotton..... " 1 25
50-ft Braided Cotton..... .....90%

LINING—STOVE.

In Bricks.....per crate 42c

MACHINES.

Boring	Without Augers.	With Augers.
Ajax .....per doz	$5 25	$6 75
Angular... "	3 25	5 00
Boss ..... "	4 50	5
Upright... "	2 90	4

Leather Riveting.
Chicago, Pomeroy ....per doz $9 75
Excelsior..... " 2 50
Handy..... " 2 10
Little Giant..... " 3 10
Pony, Pomeroy ..... " 8 00

Washing.
Boss. 1 2 5 3
Per doz.. $57 00 $63 00 $69 00 $60 00
Globe, No. 1.....per doz $51 00
O K Rotary ..... " 58 00
Round Wayne..... " 26 50
U. S. Steel..... " 60 00
Western Square, No. 2, $26 50; No 3, $28 50 per doz

MALLETS.

Carpenters'.
Fibre Head, Small. Med. Large.
Per doz.... $5 00 $5 75 $6 75
Round Hickory.....per doz $1 75
" Lignumvitæ.... " 2 75
Square Hickory..... " 1 75
" Lignumvitæ .. " 3 25
Tinners'.
Applewood ..... " 1 65
Hickory..... " 0 80
Hickory Sheet Iron. "
Door. MATS.
National Rigid.....60&5¢
Queen Flexible .....50¢
Stove.
Standrd Quality.....per gross $2 75
Best " (Pure) " 4 75
Wire Covered Asbestos, Ex.
Heavy .....per doz 1 00

MATTOCKS.

Extra.....65&5¢
Hunt's.....40&5¢

MAULS.

Iron, lbs. 10 13 16 18 21
Per doz. $3 40 $4 20 $5 00 5 50 $6 00
Wood face, lbs. 10 11 12
Per doz..... $4 75 $5 00 $5 25
Wood Choppers'.
Lake Super'r & Oregon Pat.70&10¢

MEASURES.

½ pk 1 pk ⅛ bu
Galvanized..per dz $3 75
Japanned.... " $1 50 2 25 $2 90
Iron Bound. " 1 40 1 70 2 00
Babbitt. METAL.
Alm.....per lb 8¾c
Best..... " 23c
Common, No. 4..... " 6½c
Copper Mixed..... " 18½c
Magnolia Metal..... " 19c
Tony..... " 10¼c
See Metals—In first column.

MICA.

First Quality.....40, 10&5¢
Second Quality..... .....60¢

MILLS—COFFEE.

Enterprise.....25&5¢
National.....30¢
Parker.....50&10¢@60¢

MOPS.

Bris.....per doz $3 15
Handled Cotton.
Lbs. ¾ 1 1¼ 2
Per doz.. $1 40 $2 10 $2 25 $2 95

MOWERS—LAWN.

Ball-Bearing.
In. 15 17 19 21
Each..... $7 00 $7 60 $8 25 $8 90
Champion.
In. 13 14 16 18 20
Ea.. $2 10 $2 15 $2 15 $2 20 $2 35
Champion, High Chief.
In. 16 18 20
Each..... $3 40 $3 70 $4 00
Cheap Grades.
In. 12 14 16 18
Each..... $1 90 $1 95 $1 95 $2 10
Clipper.....50&10&10¢
Girard, in. 14 16
Each $2 60 $2 80
Philadelphia.
All Styles Except A & E.....70&5¢
Style A.....60&5¢
Style E, High Wheel.....70,10&5¢
Drevels.....50¢
All Day.....Net Price

Horse. MUZZLES.
Nos. 1 2 3 4 5
Doz.$0 30 $0 50 $0 55 $0 70 $1 00

Horse Shoe. NAILS.
Ausable.....50¢
Capewell .....10¢
Perfect.....40&5&
Putnam .....33⅓¢
Star .....35¢
Picture.
Brass Head.....40&10¢
Judd's .....40&10¢
Brads.....80&10&10¢
Wire Nails—Small lots.....$2.30
Car load lots..... 2.20

NETTING—POULTRY.

Galvanized Before Weaving.80&20
" After Weaving...80&15
Cut Pieces.....65&5¢

NIPPERS.

End Cutting.
P. S. & W. Co.....40&5¢
Stubb's Pattern .....40&10&5¢
Hoof.
Heller's.....40&5¢
P. S. & W. Co.....40&10¢
V. & B .....40-5¢

Hose. NOZZLES.
Genuine Boston.....per doz $3 40
Genuine Gem..... " 3 60
Magic ..... " 3 60

NUTS—HOT PRESSED.

Square Blank.
In. ¼ ⅜ ½ ⅝ ¾ ⅞ 1
Lb. 7½c 5¼c 4⅞c 4⅝c 4⅜c 4¼c 4¼c
Square Tapped.
In. ¼ ⅜ ½ ⅝ ¾
Lb. 14c 9½c 7¼c 6½c 6¼c

OILS.

Linseed, Pure boiled .....per gal 47c
" " raw..... " 46c

OILERS.

Chase Pattern.
Brass and Copper .....50&10¢
Zinc.....70&5¢
Engineers'.
Cannon .....40&5¢
Steel .....60&10&5¢
Tin.....per doz $2 25@$2 75

Machine.
Ajax.....per doz $0 80
Copper Plated Steel.... " 1 50
Malleable Iron.....40&10&5¢
Tin.....per doz 55c@65c

OPENERS.

Box, in. 10 12 14
Flat....per doz $2 85 $3 60 $4 1[illegible]
Round.. " 2 10 2 25 2 [illegible]
Can.
American.....per doz $0 26
Delmonico..... " 1 50
Never Slip..... " 0 68
Perfect ..... " 1 35
Tip Top..... " 0 84
Crate, V. & B..... " 5 75

OUTFITS—COBBLING.

Combination ....per doz $11 50
Economical .... " 4 90
Family..... " 10 00

PADLOCKS.

Standard Wrought.....70&10&5¢
Champion .....50¢
Eureka..... .....40&10&5¢
Yale..... .....60&5¢

Cream. PAILS.
14-qt., Without Ga....per doz $3 00
20-qt., " " .... " 3 50
20-qt., With Gauge.... " 5 00
Sap, 10-qt., Galvanized, $1 60; 12-qt., Galvanized, $1 85 per doz.
Stock, Galvanized.
Quarts. 14 16 18 20
Per doz... $3 75 $4 00 $4 65 $5 25
Water, Galvd, qts. 10 12 14
Per doz..... $2 00 $2 30 $2 60
Wood.
Cable, 2-Hoop, $1 70; 3-Hoop, $1 90 per doz.
Cedar, 3-Hoop, $2 50 per doz.
Standard, 2-Hoop, $1 55; 3-Hoop, $1 75 per doz.

PANS.

Dripping.....50&10&5¢
Fry, Common.....60&10&5¢
Acme .....66⅔&5¢
Roasting.
Brownie.....Each 30c@37c
L. & H..... " 58c@80c
Building. PAPER.
Plain.....per 100 lbs $1 15
Tarred..... " 1 25
Tarred Felt..... " 1 75
Diamond A, Red Rosin.pr roll 0 63
Leader, Red Rosin..... " 0 48
Sand and Emery.
Ajax.....50&10¢
B. & A.....50 & 5¢
Wrapping.
Grecian Express .....per lb 3⅞c
Rag ..... " 2½c
Apple. PARERS.
Bay State .....per doz $13 00
Reading ..... " 6 75
Turntable ..... " 6 00
White Mountain..... " 5 25
Potato.
Goodsell's Saratoga...per doz. $6 50
White Mountain..... " 6 00

PICKS

Drifting and Poll Picks.....60&10¢
Extra Railroad.....65&5¢
Surface.....65&5¢

PINCHERS.

Carpenters', wrt. iron, pol.
steel jaws.....30¢
Blacksmiths'.....50¢
P. S. & W.....40&10&5¢
Clothes. PINS.
Common.....per gr..$0 12
Hoyt's..... " .. 30
U. S..... " .. 70
Picket.
Fluted.....per doz..$0 90
Round..... " .. 1 75
Spiral ..... " .. 1 90

PIPE.

Conductor. Nested Not nested
Eastern .....75&7½¢ 75&2½¢
Central .....75&2½¢ 70&12½¢
Southwst'n .65-10&10¢ 65-10&5¢
Mo. River....75&2½¢ 80&2½¢
Southern .....70&7½¢ 75-10&5¢
Lead.
Full coils.....per lb..$0 5¾
Cut " ..... " .. 06
Stove.
Acme—In. 5 6 7
Smooth, per jt. 10½c 10½c 12½c
Planished, " ..32c 33c 43 c
Peerless--Smooth..8½c 9c 11½c
Polished. 16c 18c 22 c
Planished 28c 31c 40 c
Made-up—In. 5 6 7
Smooth..... 8½c 9c 12 c
7 to 6 in. Smooth Tapers, pr jt..14c
6 in, Smooth T's..... " ..30c
7 to 6 in. Planished Tapers.....45c
Wrought Iron Gas Pipe.
⅜-in., black.....discount, 60¢
½ " .... " 63¢
¾-in. to 4-in , black.... " 69¢
4½ " 6 " .... " 66¢
7 " 12 " .... " 64¢
¾ " galvanized " 48¢
½ " " " 50¢
¾ " to 4 " " 56¢
4½ " " 6 " " 52½¢
7 " " 12 " " 50¢

PLANES.

Ohio.....60&5¢
Stanley Planes, new list..30¢@30&5¢
Bailey Planes .....35¢
Sandusky.....20¢
Corn, PLANTERS.
Monitor.....per doz..$7 75
Triumph..... " .. 6 00
Potato
Acme.....per doz.. $6 25
Challenge ..... " .. 10 75

Fencing.
Cronk's.....per doz..$9 25
Farmers' Choice..... " .. 8 75
Russell's..... " .. 8 65
Flat and Round Nose.
Bernard's.....30¢
German.....50¢
Lodi .....40¢
Paragon.....40&10¢
P. S. & W. Co.....60¢
Gas--In. 8 10 12
Per doz.....$3.10 $4.00 $4.90

PLUMBS AND LEVELS.

Common.....75¢@75&10¢
Cook's.....40¢
Davis' Iron .....30¢
Davis' Inclinometer.....20¢
Stanley's
Nos. 00S 0S 2S 3S
Per doz..$4.50 $5.20 $7.60 $8.65
Nos. 30 25 50 35
Per doz.$13.00 $17.50 $17.50 $12.35

POINTS. Discount
Drive Well Points.....80&5¢

POKERS--STOVE.

Wr't Iron, str't or bent, per doz.$0 50
Wr't Iron, wood hand'ls " 75
Nickel pl'td. coil hdl's.. " 70

POKES--ANIMAL.

American .....per doz.....$2 60
Brown's, wr't steel " ..$5 25@5 25
Eagle..... " $4 25
Success..... " 2 60

POLES--FISHING.

Bamboo.
Ft. 12 14 16 18 20
Pr 100..$2.75 $3.40 $4.75 $6.00 $7.75

POLISH.

Metal.
Pride of the Bar..... " .. 1 60
Putz Cream.
Pts. 1-6 ¼ ½
Per doz.....$0.54 $1.25 $1.80
Pts. 1 2 4 8
Per doz.$3.60 $6.00 $9.00 $18.00
Wondershine
Pts. 1-6 ½ 1 2
Per doz...$0.63 $1.30 $2.15 $3.00
Shoe.
M. D. C.....per doz..36c@50c
F. C. O..... " 40c
T. M ..... " 50c@$1 25
Imperial.....per gr.....$5 00
Stove.
Black Eagle, 1 lb cans, pr gr..$15 00
Blackene, 1 lb cans.... " .. 13 00
Black Jack, ¾ lb cans. " .. 9 00
Dixon's Carb. of Iron. " .. 5 75
Nickel Plate..... " .. 4 50
Rising Sun ..... " .. 6 00

POPPERS, CORN.

Round or Square, 1 qt. per doz., $5@95c
Square, 1½ qt.....per doz., $1 00
Square, 2 qt.....per doz., 1 20
1 qt. reversible .....per doz., 1 60

POTS—FIRE.

Bernz.....each..$3 85
Clayton & Lambert's, each, $4 75@6 25
Gate City.....each.. 6 25
Gem ..... " .. 6 75

POWDER.

See Ammunition.

PRESSES—FRUIT AND JELLY.

Enterprise Manufacturing Co... 25¢
Henis .....per doz. $2 10

PRUNERS.

Disston's Pole.....per doz..$7 50
Henry's Improved..per doz..65&10¢
Water's Improved. " 70, 10&5¢

PULLERS.

Cork,
Modern.....each..$2 60
Quick and Easy..... " .. 2 90
Nail.
Giant.....per doz..$9 00@10 50
Giant Pattern. " .. 6 00
Tack--Giant .... " .. 60

PULLEYS.

Awning--Jap'd.....40&5¢ to 35&5¢
Clothes Line.....20&10¢
Hay Fork.
Iron Wheel, 5 in .....per doz..$1 70
Wood Wheel, 6 in ... " .. 1 60
Wood Wheel, 6 in...
pass knot..... " .. 1 75
Hot House--Jap'd .....30&5¢
Screw..... " .....30&5¢
Side..... " .....30&5¢
Sash.
Chicago .....per doz..$0 29
Clark's..... " .. 42
Common Sense, 2 in.. " .. 26
" Pattern, 2 in.. " .. 21
Empire..... " .. 23
Ideal..... " .. 21
Ottumwa, ball b'ring " .. 34
Grand Rapids, No. 17 " .. 24
" " No. 11 " .. 25

PUMPS

Pitcher Spout.
Nos. 1 2 3 4
Each.....$0.98 $1.10 $1.20 $1.45
Spray.
Blizzard.....per doz..$14 25
Cyclone, tin..... " .. 3 90
" copper..... " .. 6 75
Daisy..... " .. 8 75
Little Giant.....each.. 2 40

PUNCHES.

Conductors', No. 22....per doz..$2 50
Machine.....per lb . 19
Saddlers'.
Common.....per doz..60c@70c
Good..... " ..72c@84c
Spring.
1 Tube .....per doz. $2 25

PLATES--TIN.

See Metals in Column 1.

PLIERS.

Button's--In. 4½ 6 8 10
Per doz.....$2.60 $3.10 $3.90 $5.20
Button's Pattern.
In. 4½ 6 8 10
Per doz.....$2.35 $2.50 $3.45 $4.40
Cutting.
Cronk's Comb.....per doz..$4 25
Bernard's.....30¢
Lodi.....40&10&5¢
Stubb's.....50¢
4 Tube, revolving.... " .. 5 95
Tinners'.
Hollow.....40¢
Solid.....each..5¼c

PUTTY.

In Bladders.
Strictly pure .....per 100 lbs. $2 25
Commercial ..... " " 2 10

RAIL.

Barn Door.
Light Wrought.. .....per ft. 3c
Safety ..... " " 5½c
Single Flange ..... " 1⅞c
Smith's Wro't Bracket—plain 3¼c
Smith's Special 4¼c
Smith's "Never Jump".....11c 50¢
Smith's Plain Steel.....30¢
Smith's Milled Steel 4¼c
Sliding Door.
Painted iron .....per ft. 4½c
Bronzed wr't iron..... " 8½c

RAKES.

Coal or Road.....per doz. $5.25
Garden.
Steel, braced .....70&10&5¢
Steel, bow.....70,5,10&5¢
Malleable iron, heavy.....70@10¢
Hay—Wood.....per doz. $1 05@1 70
Lawn—Wood.
Common .....per doz. $2
Automatic..... " 6 00
New Lawn Queen .... " 3 00
Jumbo, 36 teeth ..... " 5 75

RASPS—See Files.

REGISTERS.

List Sept. 1, 1901.

White Japanned .....75&10¢
Nickle Plated.....75&10¢
Copper .....75&10¢
Electro Plated Brass .....50¢

RINGS

and Ringers—Hog.
Blair's Rings .....per doz. 60c
Blair's Ringers ..... " 34c
Brown's Rings..... " 65c
Brown's Ringers..... " 90c
Champion Rings..... " $2 25
Champion Ringers..... " 1 70
Hill's Rings..... " 65c
Hill's Ringers..... "70c@90c
Mazor Rings ..... " 55c
Mazor Ringers ..... " $1 15
Perfect Rings ..... " 34c
Perfect Ringers..... " $1 65
Wolverine Rings..... " 1 50
Wolverine Ringers.... " 70c
Bull.
Copper, 2½-in. 3-in.
per doz..... $1 35 $1 70
Steel.....per doz. 95 1 05
Steel, Nickel Pl't'd, 2½-in., doz. 1 35
Rea's Self Piercing.. .....$1.95
Fruit Jar—White .....per lb. 50c
Key.
Split, round.....per doz. 1
Split, square ..... " 32c
Ball, round..... " 32c

RIVETS.

and Burrs.
Copper Belt .....50&10&5¢
Coppered Iron .....75¢
Tinners'.....75¢
Hame.....per lb.
Slotted Clinch .....per doz. 70c@75c
Tubular—Nos. 1 and 2, assorted sizes.....per doz. 60c

ROPE.

Per lb.
Manila, 7-16 inch diameter and larger.....11½c "
Sisal, 7-16 in. and larger.. 8c "
Cotton.
¼ and 5-16-in. on reels...per lb. 12c
¼ and 5-16-in. in coils... " 12½

RULES.

Boxwood.....60¢
Ivory .....35&5¢

SASH WEIGHTS.

Per ton, f.o.b. Chicago.....$30.00

SAWS.

Back.
Disston's.....35&5¢
Jackson's .....35&5¢
Butchers'—Disston's.....40¢
Circular.
Disston's.....50¢
Hiles'.....50¢
Compass.
Common .....per doz. $1 [illegible]@1 60
Disston's.....25&5¢
Cross-Cut.
Atkin's.....60¢
Disston's.....40&10¢ &50¢
Pocahontas Bit.....per ft. [illegible]
Pocahontas, Blued ..... " 4[illegible]
Dehorning.
Atkins'.....per doz. $5 50
Disston's..... " 5 75
Hack.
Disston's.....30¢
Keystone.....30¢

SAWS—CONTINUED.

Hand and Rip.
Brown's ..... 30&5%
Disston's No. 7 ..... 30&5%
Disston's Nos. 8, D8, 12, 76, D100, and 120 ..... 25&5%
Gorham's Comb ..... 30&5%
Keystone ..... 30&5%
Sam Sickles', hand ... per doz. $4 25
"I Will," hand ..... " 5 75
"I Will," rip ..... " 6 75
"U. S. A." hand ..... " 12 25
"U. S. A. 'rip ..... " 14 25
Keyhole—Disston's ..... 25&5%
One Man 50%

Panel.
Brown's ..... 30&5%
Disston's No. 7 ..... 30&5%
Disston's Nos. D8 and 12 ..... 25&5%
"I Will" 40%
"U. S. A." ..... 40&10&5%

Pruning.
Avery's Duplex ..... 25&5%
Brown's ..... 25&5%
Disston's ..... 25&5%

Wood.
Common ..... per doz. $4 50
Handy ..... " 7 50
Happy Medium ..... " 7 00
Wood Sawyers' Delight " 8 25

SAW SETS.

Common Lever ..... per doz. $ 1.20
Stillman's Lever ..... per doz. 1.30
Leach's ..... per doz. 5.00
Nash's ..... per doz. 4.20
Monarch ..... per doz. 6.50
Aiken's Pattern ..... per doz. 3.50

FRAMES—SAW.

Common, plain ..... per doz. $1 20
" painted ..... " 1 60

SCALES.

Counter.
Fairbank's Standard 40%
Hatch's ..... per doz. $21 50
Little Detective, 1 2 6
Each $1 65 1 85 1 80
No. 1 Tea ..... per doz. 7 75
Union Platform ..... each 2 35
Pelouze 25%
Turnbull's Market 50%

Platform.
Common, 600 800 1000
Each $8 75 9 75 10 75
Chicago Standard ..... 33⅓%&40%
Fairbank's Standard 40%

SCOOPS.

Ames ..... 10&10%

Eastern Pattern. Socket Strap.
Nos. 2 3 4 5 6
Per doz. $7.75 8.00 8.25 8.50 8.75
Nos. 7 8 9 10 12
Per doz. $9.00 9.25 9.50 9.75 10.25

Western Pattern. Socket Strap.
Nos. 1 2 3 4 5
Per doz. $7.75 8.00 8.25 8.50 8.75

Ajax. *Eastern Pattern,*
Nos. 2 3 4 5
Per doz. $5.75 6.00 6.25 6.50
Nos. 6 7 8 9
Per doz. $6.75 7.00 7.25 7.50

Ajax. *Eastern Pattern,* extra heavy.
Nos. 2 5 6 7
Per doz. $7.75 8.25 8.50 8.75

Ajax. *Western Pattern,*
Nos. 4 5 6 7
Per doz. $6.25 6.50 6.75 7.00
Nos. 8 9 10 12
Per doz. $7.25 7.50 7.75 8.25

SCRAPERS.

Box.
Stanley's Adjustable, per doz. $3 60
Triangular ..... " 2 10

Cabinet.
Ajax ..... per doz. $2 25
Cast Steel ..... " 65@75c
Stanley's No. 80 ..... " $7 75

Road.
Cubic ft. 7 5 3
Without runners, ea. $5.00 4.75 4.50
With runners .... " 5.25 5.00 4.75

SCREWS.

Bench.
Iron 30%
Wood, white maple .. per doz. .. $3 60

Hand—Wood 20%

Hand Rail ..... 70&10%

Jack ..... 75&5%

Lag or Coach. Gimlet Point .. 70&10%

Saw—Centennial.
Nos. 1 2 3 4
Per doz. 22c 25c 32c 36c

Wood.
F. H. Bright Steel ..... 87½&10%
R. H. Blued Steel ..... 85&5%
F. H. Jap'd Steel ..... 82½&5%
F. H. Brass ..... 85&5%
R. H. Brass ..... 80&5%
R. H. Nickel Plated 75%

SCYTHES.

Clipper, grain ..... per doz. .. $8 75
Dutchman, grass ..... " .. 5 50
Golden Clipper, grass ..... " .. 5 25
U. S. A., grass ..... " .. 6 50

SETS.

Nail.
Round, common ..... per doz. .. $0 33
Square " ..... " .. 42
Octagon " ..... " .. 33
Square, Buck Bros. .. " .. 1 25
Cup Point, knurled, pr doz. 70c@90c

Rivet.
Farmers' ..... per doz. .. $1 45
Tinners' ..... 50&10%

Saw.
Aiken's Pattern ..... per doz. .. $3 50
Common Lever ..... " .. 1 20
Disston's Monarch ... " .. 6 50
" X Cut ..... " .. 11 75
German ..... " .. 1 35
Morrill's Old Style ... " .. 5 00
" Pattern .... " .. 4 50
Leach's ..... " .. 4 80
Nash's Hand ..... " .. 4 00
" X Cut ..... " .. 5 50
Stillman's Lever ..... " .. 1 30
" X Cut ..... " .. 2 50

SHARPENERS—SKATE.

Diamond ..... per doz. .. $1 60

SHAVES—SPOKE.

Iron ..... per doz. .. $1 35@$2 75
Wood ..... " .. 2 75@ 4 75
Bailey's ..... 50&5%
Goodell's 15%
Stanley's Universal ..... 30&5%

SHEARS.

Pruning.
Buckeye, No. 1 ..... per doz. .. $6 50
" No. 2 ..... " .. 8 50
California Pat., 9 in. .. " .. 4 25
" 10 in. .. " .. 5 00
Draw Cut, No. 3 ..... " .. 15 50
" No. 4 ..... " .. 18 50
Henry's Pat. 0 01 14 012
Per doz. .. $1.90 $2.50 $3.15 $3.50
Star ..... per doz. .. $4 75

Sheep—No. BBA.
6 in. 6½ in. 7 in.
Reg. Grip .. $11.00 $11.35 $12.00 doz.
Nar. Grip .. 11.20 11.00 12.15

Tinners'—See Snips.

SHEAVES—SLIDING DOOR.
In. 3 4 5
Common .. Per set .. $0.42 $0.48 $0.70
Hatfield's. " .. .75 1.00 1.60

SHELLERS—CORN.

Union ..... per doz. .. $7 25

SHOT—See Ammunition.

SHOVELS AND SPADES.

Railroad, Etc.
Gold Hibbard's ..... per doz. .. $9 25
C. H. Conovers's ..... " .. 7 75
Beckwith's ..... " .. 7 75
Hickory ..... " .. 6 25
Greenleaf's ..... " .. 5 75
Columbus ..... " .. 5 00
Ames' new list ..... Discount 12½%

Coal.
No. 2 Ajax ..... per doz. .. $5 25
No. 4 Golds ..... " .. 6 25
Ames' new list ..... Discount 12½%

SIEVES.

Champion ..... per doz. $1.00
Hunter's Genuine ..... " 1.20
" Imitation ..... " 1.00
Tin Rim, 16 mesh plain wire " 1.35
Wood " 16 mesh plain wire " .85

SINKS.

Cast Iron.
Painted ..... 50&5%
Enameled, White ..... 60&10&5%

Wrought Steel.
New Era 50%

SLEDGES—See Hammers.

SNAPS—HARNESS.

Champion 65%
German Pattern ..... 30&5%
Judd's Pattern ..... 60&10%@70%

SNATHS.

Double Ring, Bush .... per doz. .. $6 50
Patent Loop " .... " .. 7 00
" " Brass .... " .. 6 25

SNIPS—TINNERS'.

Hernisch's ..... 40&5%
National ..... 40&5%
P. S. & W. Co.'s ..... 25&5%

SOLDER.
See Metals, Column 1

SPRINGS—DOOR.

Perfect. Nos. 1 2 3 4
Per doz. 32c 38c 45c 48c
Reliance, Light $1.40. Heavy $2.20 doz.
Star ..... " .90, " 1.30 "
Torrey's ..... per doz. .. $1 35
Warner's— No. 1 No. 2
Per doz. 72c $1 45

SQUARES

Steel and Iron 70%
(Add for Bluing, $2.50 per doz., net.)
Mitre—Stanley's No. 12 ..... 40%
Try.
Stanley's No. 20, new list ... 30&10%
" Nos. 12 and 14 ..... 40%
Try and Bevel—Stanley's ..... 40&5%
Try and Miter.
Fox's ..... per doz. .. $7 25
Winterbottom's 50%

SQUEEZERS—LEMON.

Common Wood ..... per doz. .. $0 72
Porcelain Lined, wood ..... " .. 1 30
Boss, tinned iron ..... " .. $1
Pearl, nickel plated ..... " .. 1 30
Star " " ..... " .. 1 60
Little Giant, tin'd iron ..... " .. 4 25
King ..... " .. 2 50
Drum ..... " .. 4 50

STAPLES.

Blind—Barbed ..... per lb. 9½@10c
Butter Tub ..... " 8@8½c
Fence, less than carload.
Polished ..... per 100 lb. $2 40
Galvanized ..... " 2 80
Netting—Galvanized ..... per keg 3 60
Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, and Hooks and Staples ..... 35-10&5%
Extra heavy ..... 75&10%

STEELYARDS.
Discount 25%

STONES.

Axe.
Hindostan ..... per lb. 5½@7c
More Grit ..... " 9½c
Washita ..... " 16½c
Emery ..... 60%@60&5%

Oil—Unmounted.
Arkansas Hard ..... per lb. $2 00
Arkansas Soft ..... " 1 15
Hindostan ..... " 6½@8½
Lily White ..... per lb 43c
Queer Creek ..... " 14½c
Ouachita ..... " 36c
Washita ..... " 25c

Sythe.
Black Diamond ..... per gro. $7 75
Clear Grit ..... " 4 25
Gem Corundum ..... " 7 50
Green Mountain ..... " 4 20
La Moille ..... " 7 00
Pikes Gen. No. 1, Ind. Pond., per gro 4 75
White Mountain ..... per gro. 6 50
Willoughby Lake .... " 6 25
Red End ..... " 3 15

STOPS—BENCH.

Hotchkiss' ..... per doz. $3 60

STOPPERS—FLUE.

Common ..... per doz. 42c
Crown ..... " 48c
Gem, flat, painted ..... " 72c
Gem, cor'd, decorated .... " 68c
Kirch's ..... " $1 20
Peerless ..... " 72c
Skinner's Common Sense " 95c

STRAPS.

Scoop ..... per doz. prs. $1 80
Skate ..... " " 60@70c

STRETCHERS.

Carpet.
Bullard's ..... per doz. $3 90
Excelsior ..... " 5 50
Malleable Iron ..... " 70
Perfection ..... " 6 00

Wire.
N. S. Elwood's ..... per doz. $5 75
O. S. Elwood's ..... " 5 75
Little Giant ..... " 5 00
Star Lever ..... " 6 25
Star Tackle Block .... " 9 25
Warner's ..... " 6 25

SWIVELS.

Malleable Iron ..... per lb. 6½c
Wrought Steel ..... per gro. $4 50

TACKS.

American Cut ..... 90&5%
American Wire ..... 85&25&10%
Bill Posters Cut ..... 90&40%
Blued Carpet ..... 90&15%
Tinned Carpet ..... 90&15%
Gimp ..... 90&30&10%
Upholsters' Cut ..... 90&40&5%
Upholsters' Wire ..... 90&25%
Double Pointed ..... 90&20%
Copper ..... per lb. 26c
Canvas Nails ..... 75&5%
Clout Nails ..... 75&10&5%
Hungarian Nails ..... 80&5%

TAPES—MEASURING.

Asses' Skin ..... 40&10%
Bend Leather 25%
Patent Leather 25%
Lufkin's Steel 30%
Lufkins Metallic 30%

TENTS AND PAULINS.

Wall Tents ..... 50&20&10%
Wedge Tents ..... 50&10&5
Paulins ..... 50&10&5%
Wagon Covers ..... 50&10&5%

THERMOMETERS.

Tin Case ..... per doz. .. 95c@$1 25
Wood Back ..... " $1 75@ 9 00
Glass ..... " 15 50

TIES.

Bale.
Single Loop ..... 80&10&5%
All other kinds 70%

Cow—See "Chains."

TONGS.

Crimping—Packham's ... per pair 50c
Gutter—P. S. & W. Co.'s ..... 15&10%
Pipe—Brown's 50%
Roofing—P. S. & W. Co.'s .... 15&10%

TOOLS—SAW.

Atkin's Dexter ..... per doz. $4 25
Atkin's Excelsior ..... " 6 25
Disston's Universal 40%
McDonald's 33⅓%
Simond's Crescent ..... per doz. $10.00

TRAPS.

Game.
Hawley & Norton 70%
Newhouse 50%
New Victor 80%

Mole—Reddicks ..... per doz. $5 75

Mouse and Rat.
Wood Choker ..... per hole 10c
Tin Choker ..... " 11c
Delusion ..... per doz. 85c
Imitation Sight, Rat .. " 80c
Marty Rat ..... " $6 75
Marty Rat, Imitation .. " 3 75
Marty Mouse ..... " 3 15
Marty Mouse, Imitation " 2 10
E-Z-Ketch, Mouse ..... " 42c
E-Z-Ketch, Rat ..... " 90c
French Automatic ..... each $3 60

Fly.
Balloon ..... per doz. $1 25
Harper's ..... " 1 35

TROUGH—EAVE.

Eastern ..... Discount 80&7½%
Central ..... " 80&2½%
South Western ..... " 75-10&2½%
Missouri River .... " 80&2½%
Southern ..... " 75-10&5%

TROWELS.

Brick.
Standard 30%
Brade's ..... 10&7½%
Disston's 30%
Rose's 25%

Plasterers'.
Standard 33⅓%
Disston's 30%
W. & McP 25%

TRUCKS.

Bags ..... each $1 70
Handy ..... " 1 50
Warehouse ..... 60&5%

No. 1 2 3
Half Ironed $2.60 $3.40 $5.00
Full Ironed 3.90 5.75 6.75

TUBS-WASH.
No. 3 2 1 Ex. large
Standard, per doz. $5.25 6.25 7.25 9.75
Dowel .... " 5.60 6.60 7.50 10.00
Cedar .... " 6.50 7.50 8.25
Indurated. " 7.20 7.95 9.45 11.70
Galvanized.
No. 1 2 3
Per doz $5.75 6.25 7.00

VISES.

Bonney's 30%
Cheney's 20%
Parker's Oval Slide ..... 50@50&10%
Parker's Parallel ..... 15@20%
Parker's Victor 10%
Parker's Combination ..... 50&10%
Solid Box ..... 50&10%
Adam's Mechanics' ..... each $2 50

WARE,

Cast-Iron Hollow.
Ground ..... 40, 10&2½%
Unground ..... 50, 10&2½%
Extra Finished 40%
White Enameled ..... 40&5%
Maslin Kettles 65%

Enameled.
Adamant, one coat, 70&10%@75&10%
The manufacturers divide this ware into two classes, which take different discounts, noted above.
Chrysolite, three coat ..... 40&5%

WASHERS.

Leather. In ⅜ 1 1¼ 1¾ 1¾
Nut, per C 16c 17c 19c 25c 33c
Collar, per C ... 35c 40c 40c 43c

Wrought Iron.
In. ¼ 5-16 ⅜ ½ ⅝ ¾ to 1
Per lb ... 9c 8c 6¾c 5¼c 4¾c 4½c

Wrought Steel.
In. ¼ 5-16 ⅜ ½ ⅝ ¾ to 1
Per lb .10c 9c 7¾c 6¼c 5¾c 5½c

WEDGES.

Ax ..... per doz. .. 30c
Galling ..... per lb. .. 10½c
Saw ..... " .. 8¾c
Wood Choppers.
Lake Superior and Oregon, Pat ..... per lb. .. 9¾c
Reg. Pattern, Steel .. " .. 4 c
Truckee " " ... " .. 4¼c

WEIGHTS.

Hitching ..... per lb. .. 2¾c
Sash—F. O. B. Chicago .. pr ton .. $28.00

WHEEL BARROWS.

Common Railroad .... per doz. .. $13 00
Heavy " .... " .. 19 50
Railroad, ball bearing " .. 19 00
Santiago Steel Tray .. " .. 26 50
No. 04 Steel Dirt ... " .. 52 00
No. 04½ " " ... " .. 56 00

WHEELS.

Emery and Corundum ..... 75&5%
Well. In. 8 10 12 14
Per doz. ... $1.90 $2.20 $3.00 $5.50

WIRE.

Barbed. Painted. Galv'd.
Carloads ... pr 100 lbs .. $2.50 $2.80
Less than car " .. 2.60 2.90

Brass.
In coils 20%
In 1 lb. spools, new list ..... 50&10%

Broom—Tinned ..... 60&10&10&10%

Cable—Same price as Barbed Wire.

Copper.
In coils ..... 20&10% 33⅓%
In 1 lb. spools, new list ..... 50&10%

Fence—Smooth.
Nos. 6 to 9, Annealed, pr 100 lbs. $2.10
Nos. 6 to 9, Galv'd ... " 2.20

Hair—New list ..... 50&10%

Market.
Bright, full bdles ..... 70&10%
Bright, broken bdles 70%
Coppered, full bdles 70%
Coppered, broken bdles .... 65&10%
Tinned, full bdles ..... 70&5%
Tinned, broken bdles ..... 65&10%

Picture.
In coils ..... 80%@80&10%
In 5 lb. spools ..... per lb. .. 26c

Plain—Small lots $2.00
Car lots 1.95
Small spools 5c per hundred higher

WRENCHES.

Acme Standard 60%
Alligator ..... 65&5%
Always Ready ..... 40&10&5%
Bemis & Call 40%
Coe's Standard ..... 40&10%
Girard's Agricultural 75%
P. S. & W. Co.'s Agricultural 75%
" " " Knife H'dle .. 50&5%
Wescott's "S" 33⅓%
Malleable ..... per lb .. 6½c
Stillson Pipe ..... 60&5%
Trimo " 60%

WRINGERS.

Clothes.
Nos. 22&110, Guarantee, pr doz. $36 00
No. C 350, Novelty ..... " 22 50
No. 3, Empress ..... " 26 50
No. 150, Sunshine ..... " 18 00
No. 130, Mendota ..... " 18 00
No. 12, Success ..... " 16 00
No. C 500, Royal ..... " 28 00
Blue Bell Ball Bear'g. " 36 00

Wants and Sales.

For yearly subscribers to THE AMERICAN ARTISAN will be inserted under this head advertisements of six lines WITHOUT CHARGE, for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they read the advertisement in THE AMERICAN ARTISAN.

BUSINESS CHANCES.

PATENTS HUBERT E. PECK, 623 F St., N. W., Washington, D. C. Consulting Expert in Patent Causes. U. S. and Foreign Patents. Send for leaflet on "Rejected Patent Applications." Honest work but no "Something for Nothing" offers.

Will exchange my fine Iowa stock farm and grain farm at a low cash price, for good stock of hardware. Want good location for business. No traders need answer. Address Iowa, Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 11

For Sale—A good, clean stock of hardware, invoice about $1,500, in Wisconsin; good farming district. Rent or sell buildings. Do not write unless you mean business. Address "S. L.," care of The American Artisan, 69 Dearborn st., Chicago. 11

For Sale—Good-paying cornice and tin shop; county seat town, 15,000 population; invoice about $900; will be sold at a bargain. This is a snap for a good tinner and cornice maker. Can give immediate possession. Address Cornice Works, 407 Sycamore street, Waterloo, Iowa. 11

For Sale—A well established hardware and paint business, located in a first-class town, splendid farming community, 17 miles from Chicago. Reason for selling, poor health. Investigation is invited. Address "A. I.," care of The American Artisan, 69 Dearborn st., Chicago. 11

For Sale—An up-to-date stock of hardware with tin shop. Invoice Jan. 15, 1903, $2,000. Also frame store building, 23x60 feet, two stories and basement, $900—a bargain. Reason for selling, poor health. Twenty-one miles east of Lansing on G. T. R. R.; 700 inhabitants. Address H. B. H., Box 174, Morrill, Mich. 11

For Sale—The leading hardware and stove house in a good, growing and prosperous city of northern Illinois. A bargain for the right party if taken at once. The present owner is interested in the manufacturing business and will have to devote his entire time to that industry. Stock will invoice $7,500 to $8,000. Address "Invoice," care of The American Artisan, 69 Dearborn st., Chicago, Ill. 11

Wanted—A partner with $100 to invest in a light manufacturing business; the investment will return the principal every year in profits. For particulars address, with stamp, M. V. S., Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 10

For Sale—A good clean hardware and plumbing and tinning establishment of about $7,000 or $8,000 stock in a No. 1 good country; rich farming and rich farmers; good business; good town, in S. W. Minnesota. Address "Health," Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 10

For Sale—On account of sickness, hardware, stove, tinware and implements in a good town, good country about 85 miles west of Chicago, in Illinois; stock and tools will invoice about $5,000; only on account of sickness would sell; only hardware store in town. Address "K." Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 10

For Sale—Hardware and furniture business in one of the best towns in South Dakota, county seat. Two thousand population and growing rapidly; new brick store, stock new, bright and clean; reasonable rent; large territory to draw from. This is an opportunity not often found to step in an established growing business; stock will invoice about $5,500; reason for selling sickness; must have change of climate. Address "Dakota," Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 10

Wanted—Prices from different manufacturers who make cast iron coppered wash boiler handles. Address Box 1043, Peoria, Ill. 9

For first-class opportunity to go into hardware implement business in southeastern South Dakota, address "C37," Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 9

TINNERS' TOOLS.

For Sale—Set of tinners' tools in good condition; list of tools sent on application. Edmund Neville, Dixon, Ill. 11

Wanted—Second-hand groover, folder, former, kemper and beader combined, and mandrel. Wm. G. Meiner & Son, Lorain, Ohio. 11

For Sale—Niagara 30-in. Square Shear, 30-in. Rollers, 20-in. Groover, 21-in. Tin Folder, Wiring and Turning machines. Mandrels, Stakes, Tongs, Gutter Beader, Roofing Folder, Wright S. I. Folder and Bench Plate. All practically new. Price, $8,500. H. M. L., 803 S. West st., Rockford, Ill. 11

For Sale—Set tinners' tools in good shape. M. B. Sherwood, Sue City, Macon Co., Mo. 10

Wanted—Double seaming machine which deflects, and set of tinners' stakes. Address A. G. Richardson, Eagle River, Wis. 10

For Sale—Tinners' tools. One No. 1 Flanders' circular shears with edge turner and discs; one brass mounted grooving machine, 20 in.; one Stow's double seaming machine discs; one tube former, 11 in.; one Vanbramer's wire cutter and ball former. Frank J. Myers, 125 E. Belmont Ave., Chicago, Ill. 10

For Sale—A complete set of tinner's tools with brake, also stock of supplies including pumps and tools for same, tinner's wagon is also included. Shop is connected with store, and if satisfactory arrangement can be made you can help out in store on days that you are not busy in shop. Address A. J. Koch, New Baden, Ill. 10

For Sale—A complete set of tinners' tools and machines. C. L. Ewalt, Crystal Lake, Ia. 9

Wanted—One pair second-hand 30 in. square shears; must be in good condition and cheap. Address C. H. Tinsley, Covington, Ind. 9

HELP WANTED.

Wanted—A good all-around tinner; must be sober; good wages paid the right man. Address C. M. Brooks, Moweaqua, Ill. 11

Wanted—A good tinner with a knowledge of plumbing and furnace work; must be a steady man; state age, wages wanted, etc., to H. Godfrey & Son, Jonesville, Mich. 11

Wanted—A good, all-around tinner, sober and up-to-date. Steady work and good wages for the right party. References. Write or apply at once to G. B. Watrous & Son, Waukegan, Ill. 11

Wanted—At once, a good tinner, one who is able to take charge of shop in place of 5,000; must be able to do plumbing also; a married man desired; permanent position and good wages to right man. Williams & Ripley, Winchester, Ill. 11

Wanted—A good, all-around tinner and one who can do plumbing and help in store; good wages the year round; state experience; none but good, sober men need apply. Address Business, in care The American Artisan, 69 Dearborn street. 11

Wanted—A tinner who is steady and can do all kinds of tin work, state wages and can come at once. Rummell Bros., Sioux Falls, S. D. 10

Wanted—Tinner in city of about 3,000; steady job for the right kind of man; young married man preferred; reply to G. V. Mueller, Columbus, Wis. 10

Tinner Wanted—One who has worked in country town with about three or four years' experience. Steady work to the right party. Call or address F. Prairie, 3424 State St., Chicago, Ill. 10

Wanted—First-class salesman; must be thoroughly experienced in tin plate and metals. Prefer man acquainted with trade in Virginia, North and South Carolina. Address "Mnufacturer," Lock Drawer 1530, Philadelphia. 10

Wanted—A tinner with two or three years' experience that can clerk in store when necessary; must be able to speak German; write, stating wages expected. Address "Mack," Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 10

Wanted—Two good traveling salesmen to cover Ohio, Indiana, Illinois and Michigan, for a complete and well known trade-mark line of stoves and steel ranges. Only men of ability need apply as we want the best that money can buy. Address The Wm. Resor & Co., Cincinnati, O. 10

Wanted—A good all round tinner and hardware clerk, one who can do pipe work, bicycle repairing, etc., and has had experience in a hardware store in small town; must be a good mechanic and temperate; steady job for the right man; state experience, references and terms. H. W. Blackwell, Gladstone, Mich. 10

Wanted—First-class tinner to take charge of shop as foreman. One who is a practical furnace man and can estimate and lay out work from plans; must be sober and reliable; steady work and good salary for right man. Address M. R. O'Neill, Wholesale and Retail Hardware, Fargo, N. Dak. 10

Wanted—Tinner, pump and implement man; steady job in country town; don't answer this if you do not want an annual job, things being satisfactory. McCarthy Hdw. Co., Mankato, Kan. 10

Wanted—A good tinner for a country tin shop, a good job to the right kind of a man; give full particulars in first letter, also state wages wanted. Address "Country," Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 10

Wanted—We have a good, first-class permanent place for a tinner who understands plumbing, steam fitting, hot water and hot air heating and galvanized iron work; work and pay every day in the year. Dooley & Dooley, Rockville, Ind. 10

Wanted—A good straight man to work in tin shop. W. C. Tilford, Ireton, Ia. 9

Help Wanted—Pattern fitter, who has had some experience in fitting. Indianapolis Stove Co., Indianapolis, Ind. 9

Wanted—Tinner, good all around man for country shop, must be steady and reliable. Call or address Boyd Bros., Glen Ellyn, Ill. 9

Wanted—A first-class tinner, thirty to thirty-five years old; married and sober; steady employment and good wages guaranteed. Address Jones Bros., Milford, Ill. 9

Wanted—A good tinner, one who can do some plumbing and understands furnaces. Send references and wages expected. Thomson Hdw. Co., New Albion, Iowa. 9

Wanted—Stove salesman; none but experienced stove salesmen need apply; state age, experience, reference and salary wanted. Brand Stove Co., Milwaukee, Wis. 9

Wanted—Tinner, who can do some plumbing; references; no boozer; prefer a man who would care to finish the plumbing trade; steady work year around. Chas. Soames, Peru, Ind. 9

Wanted—Good all round tinner. Must be sober and reliable. Steady job the year round to right man. State wages, experience and age. Address "F. W.," Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 9

Tinner Wanted—A steady job to a tinner; must give good references, married man, middle age preferred. Want man that can help in store when not needed in shop. A good easy job for the right man. W. P. Bauer & Co., Sac City, Iowa. 9

Wanted at Once—Two good first-class tinners, steady, reliable and thoroughly acquainted with furnace work; steady job guaranteed the year around at the right price. To work in town of 12,000 in central Illinois. G., Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 9

Wanted—An experienced and competent tinner, understanding job work as well as manufacturing tinware, and who is also qualified to do plumbing as well as furnace work. Must be of good character and habits. Position permanent. The position to be filled is in a county seat town, located within forty miles of Des Moines. Address Luthe Hardware Co., Des Moines, Iowa. 9

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Situation Wanted—20 months' experience at the tinners' trade. Address John Nesvacil, 849 26th St., Milwaukee, Wis. 11

Position Wanted—As tinner, by a good, all-around man, at general work. Illinois preferred. Address "Box H," care of The American Artisan, 69 Dearborn st., Chicago, Ill. 11

Wanted—A position by pump expert as clerk and pump man in implement or hardware house west of Mississippi river. Am strictly sober and understand my business. Address R. D. No. 2, B. 57, Ottumwa, Iowa. 10

Bookkeeper of eight years' experience in retail hardware; also having charge of the advertising and part of the purchasing, would consider a change. Excellent reasons for wishing to leave present position; western states preferred. "E. W.," Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 10

Wanted—A steady position by the year by a first-class tinner and plumber; also can do furnace, steam and hot water heating; first-class salesman on bicycles and repairing; can take full charge of shop; figure from plans for all work. Please state wages paid in first letter by the week; no lost time the year round; A No. 1 references; married and of good habits. Address Colorado, Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 9

Wanted—Situation about April 1st as foreman, by an experienced cornice maker and tinner, capable of making estimates, laying out and doing anything in cornice work, tin, slate, iron and gravel roofing or shop work; also designing and erecting steel ceilings, etc. Am married, strictly sober, a close cutter of material and a good hustler. Best of reference. Address, stating salary, "Designer," Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 9

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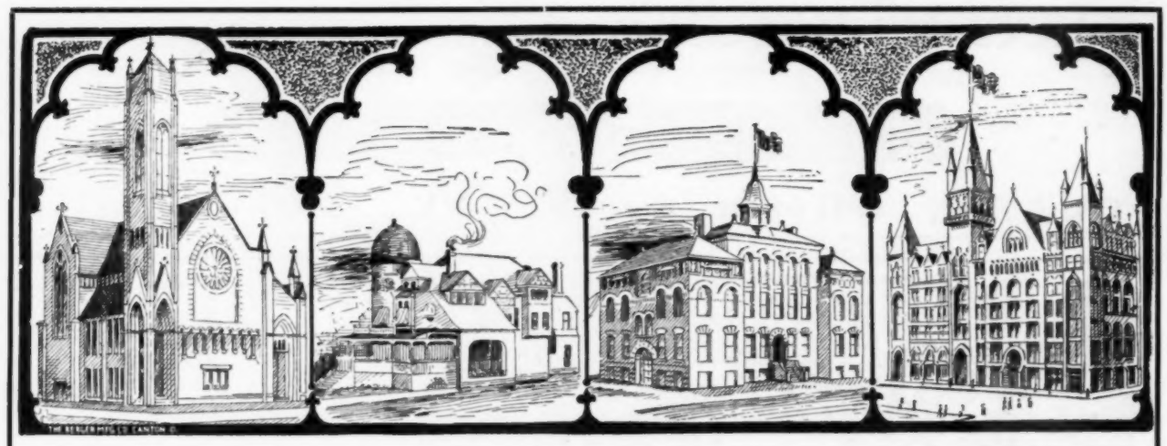

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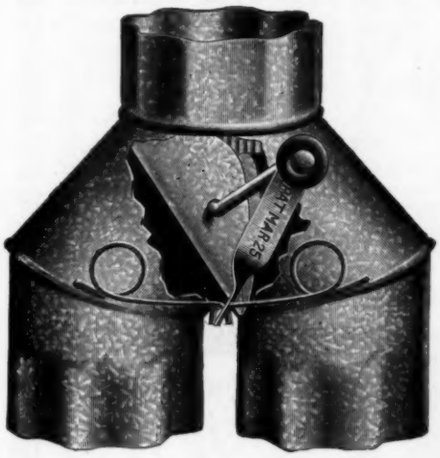

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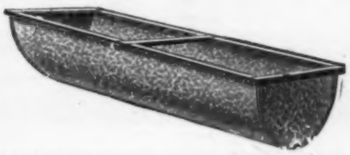

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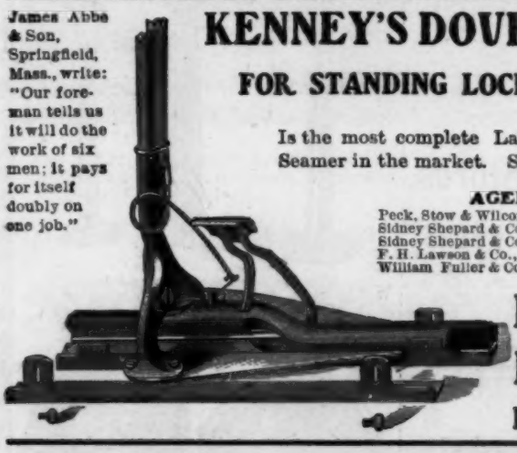

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COST	SELL

Analysis No. 72,339. NEW YORK, Dec. 7, 1896.
We have made a careful examination of a sample of "Agate Nickel Steel Ware" received from The Lalance & Grosjean Mfg. Co., Nov. 30, 1896.
The enamel coating is homogeneous, of extra thickness, and great purity.
It is *entirely free from arsenic, lead and antimony*—metals so often found in enameled goods.
Very respectfully,
STILLWELL & GLADDING,
Chemists to the New York Produce Exchange.

Pierce de P. Ricketts, E.M., Ph.D.
John H. Banks, E.M., Ph.D.
Analysis No. 14,190. NEW YORK, May 5, 1897.
LALANCE & GROSJEAN MFG. CO.:
GENTLEMEN—As requested by you, we purchased in the open market a sample of "Agate Nickel Steel Ware" and have made a careful chemical analysis of the enamel covering of the same.
We find this enamel is *absolutely pure and free from Arsenic, Antimony, Lead and other substances injurious to health.* We can therefore recommend it for all culinary and drinking purposes. Respectfully yours,
RICKETTS & BANKS,
Chemists to the N. Y. Metal Exchange.

Guaranteed Double Coated and Absolutely Pure
Copyrighted.

Read carefully the Chemists' Certificates.

Send for pamphlet soon to be issued. **Lalance & Grosjean Mfg. Co.**
NEW YORK BOSTON CHICAGO

BOWL.

Largest and Best Equipped Factory in the South for the Manufacture of

SAD IRONS, Country and Stove HOLLOW WARE, Ground and Unground; SUGAR KETTLES, ENGLISH POTS, Castiron SHOE LASTS and STANDS, KITCHEN and CORNER SINKS, GRATES, ETC.

REVERSIBLE CAST IRON SHOE LASTS AND STANDS.

WHY NOT WRITE FOR OUR CATALOGUE? It cannot fail to prove of interest and value to you

ECCENTRIC STOVE KETTLE.

Blacklock Foundry
SOUTH PITTSBURG, TENN.

JUST ONE MINUTE

IS IT QUALITY? IS IT PRICE?

We have BOTH in

The Frost King Separator

Water and milk not mixed. They are bound to please your trade that demand this style of Separator as they sell for from 10 to 25% less than asked by others. Write to-day for Catalogue and prices.

Lawrence Mfg. Co., Toledo, O.

THE

Jersey Cream Separator

Separates Cream from Milk in One Hour by the Dilution Process.

FOR SALE TO THE TRADE BY

GALESBURG CORNICE WORKS

GALESBURG, ILLINOIS

Pat. May 21, 1901.

THE ARRAS CREAM SEPARATOR

Separates cream from milk thoroughly without dilution and no machinery. The most convenient device for handling milk, winter and summer, on the market.

A sure seller, sold only to one dealer in each town. Write for prices and descriptive catalogue to

The Arras Cream Separator Co., Bluffton, Ohio

A Remarkable Photograph Taken by a Wonderful Light.

The above photograph (greatly reduced) was taken at 9 p. m. in the store of Manchester, Gill & Dodds, of Skidmore, Mo. The store is 60x60 ft. and is lighted by only three

"DORAN LIGHTS"

That three of them can light a store of this size and then give light to spare to permit of a photograph being taken, is a testimonial in itself.

Send for Catalogue and Full Particulars.

ACORN BRASS MFG. CO.,

Dept. H. CHICAGO, ILL.

LYONS SPECIALTY COMPANY, Lyons, Iowa.

Design Pat. Feb. 1, 1902

We are NOW the manufacturers and jobbers of the

EVERLASTING CHIMNEY CAP.

Made of cast iron and fits any chimney. Sets on top and is held in place by cement. Collar at top of cap for round pipe when necessary to extend the chimney. No chimney is complete without it.

We can now make prompt shipments and solicit orders from the jobbing and retail hardware trade.

LYONS SPECIALTY CO., LYONS, IOWA

MADE BY THE GRAND RAPIDS REFRIGERATOR CO. GRAND RAPIDS, MICH., U.S.A. FAMOUS

CATALOGUE & SAMPLE FREE.

The BOSS CREAM SEPARATOR

The most complete device for handling milk winter and summer. No mixing of milk and water. Thousands were sold last year, and many more will be sold this year.

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BLUFFTON, OHIO.

The SUPERIOR CREAM SEPARATOR.

The Only Separator That Saves Work and All the Cream.

Legs and Strainer With Each One.

For prices and agency write

Superior Mfg. Co., Indianapolis, Indiana.

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Hunter's Sifters

We are the sole manufacturers and there is no other Sifter made that has the reputation or is any comparison to the **Genuine Hunter's.**

The only Sifter with a loose cap on the handle, so as to clean out the flour that accumulates in it while the Sifter is in use.

THE BEST IN THE WORLD

Combined Mixer, Scoop, Measure, Dredger, Rice Washer, Pumpkin, Tomato, Wine, Starch and Fruit Strainer.

The Fred J. Meyers Mfg. Co.,

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A WONDERFUL INSTRUCTOR.

I want every hardware dealer to handle The Key to The Steel Square. It is of metal, 4x4 inches. It tells what figures to use on the Steel Square for all of the cuts and bevels for common rafters, jacks, hips and valleys for octagon and square roofs. It gives their lengths from 1 to 24 inch rise per foot run. It tells what figures to use to frame to any degree. Complete with instructions and morocco case. Every carpenter wants it and most all will buy it. Retail price, $1.50. Write for trade price. Albert W. Woods, Arch't, Lincoln, Neb.

"NEVER-BREAK" Heavy-Steel, Seamless-Drawn, COOKING UTENSILS

"NEVER-BREAK" Mirror-polished Spiders and Griddles and Bright Tinned Kettles and Bowls cook right—easily—quickly.

They are Hygienic. Do not warp—do not crack. They "Never-Break."

Grease does not soak in; Flavors and Odors do not cling to them.

If your Jobbers don't handle these goods, let us know at once. But do write for our Catalogue.

THE AVERY STAMPING CO., - Cleveland, Ohio.

"Now Comes Wire Fixing Time."

And necessarily a demand for a good tool, which our improved ideal fence tool, staple-puller, plyer and wire tier meets.

Combines the usefulness of six tools with the convenience of one. Will stretch, cut, splice or tie wire, drive or pull staples, and pull nails.

Send for our **GREEN BOOK** of Hardware Specialties for full particulars.

And be sure the name is on the goods.

UTICA DROP FORGE & TOOL CO., Mfgrs. of Plyers and Nippers.

SMITH & HEMENWAY CO., Corp. Ltd.

Manufacturers of Cutlery and Hardware Specialties.

296 Broadway, NEW YORK.

TACKS

TOWER M'F'G. CO.
ELM & FRONT STS.
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MANUFACTURERS

MONON FLORIDA SLEEPER

The Monon Route and C. H. & D. through Florida sleeper leaves Chicago 9 p. m. daily, passing through the picturesque mountain region of East Tennessee and Northern Georgia by daylight, via Lexington, Chattanooga, Atlanta, Chickamauga, arriving at Jacksonville-St. Augustine at a convenient hour in the morning. Dining and observation cars. Send for "Ten Routes to the South." City Ticket Office Monon Route 232 S. Clark Street, Chicago.

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Great progress has been made in building typewriters in the last three years, greater advances than in all the time previous. Years of experience have shown what was valuable and desirable and what should be sacrificed. Some typewriters do good work and are durable, yet are hard to operate and are cumbersome; others are too complicated and easily get out of order, do not keep alignment, etc.

Operators who have used The Fox Typewriter are unanimous in agreeing that it combines more desirable features than any writing machine yet produced. It is a basket type machine, with ball bearing carriage, two oz. key tension, half inch key dip aluminum finger levers with individual tension, adjustable typebars—insuring perfect alignment even after years of service, line lock, automatic line spacer, and automatic ribbon movement, combining the features that give durability with the lightest touch, easiest action and most simple construction.

Our 1903 catalogue tells all about it and will be sent for the asking. Our free trial plan enables anyone, anywhere, to try "THE FOX" for ten days. Write us to-day about it. FOX TYPEWRITER CO., LTD., 454 FRONT ST., GRAND RAPIDS, MICH.

"H&A" Double Shot Guns
Single Shot Guns
Small target Rifles
Revolvers "H&A"

Most complete line made by any American Factory
write for Catalogue "A", it tells our story
The Hopkins and Allen Arms Co
Norwich Conn.

"This is the Cooker with the whistle that calls the Cook and is the Cook's delight."

"IDEAL" Steam Cookers Lead the World.

Entire meal can be cooked over one burner—Any kind of stove. Reduces fuel bills 50 per cent. Made of the finest one and 2x charcoal tin plate, with heavy pressed copper seamless bottoms.

SUPERIOR TO ANY OTHER In the following Important Particulars:

It has a Steam Tight Cover that prevents the steam and odors from escaping, without any kind of rubber packing or any useless machinery. It has a Steam Whistle that can be heard in almost every part of the house fifteen minutes before the water is exhausted.

A whole dinner can be put on at once, covered up and let alone until ready to serve. All the nutriment, richness and flavor of the food is retained. It saves the labor of watching.

Burning, scorching, smoking, or over-cooking is impossible. It never boils over.

Four pounds of meat or poultry cooked in the cooker are equal to five pounds cooked in the ordinary way, as there is no shrinkage.

Bad cooking or scorching victuals are impossible. It saves fuel, saves worry, and cooks perfectly.

We also make a fine line of Milk Sterilizers, Ideal Clothes Racks, Hat and Coat Racks, Vapor Bath Cabinets, etc.

SEND FOR OUR ILLUSTRATED CATALOGUE WITH PRICES.

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Write us for Circulars and prices.

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HIGH SPEED. LIGHT RUNNING.

Sold direct from manufacturers to dealers.
Only one dealer in each town.

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White Lily Washers Wash Lily White.

OCEAN WAVE WASHER

Once Sold They Never Come Back

EXCLUSIVE AGENCY GRANTED.

Handsome, Well Made and Light Running, Adjustable to High or Low Speed.

Write for particulars.

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Therefor every dealer who wishes to please his customers should carry a line of the **"Buckeye Brand" Decorative Home Paints.** The long list of good points of this paint creates a demand for it everywhere. Our book of Paint Points on application.

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The Greatest Stove and Range Wagon Ever Built

Low down. Short Turn. Thousands in use. Ask for Catalogue and Prices.

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Manufacturing is rapidly developing along the lines of the Chicago, Milwaukee & St. Paul Railway. Industries on a large scale now extend to the Mississippi River with indications of reaching the Missouri. Machinery and all the higher classes of manufactured goods are now being exported from this business territory to all parts of the world.

The Chicago, Milwaukee & St. Paul Railway Company's 6,600 miles of railway, exclusive of second track, connecting track or sidings, traverses eight states, namely:

NORTH DAKOTA	MINNESOTA	NORTHERN MICHIGAN
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Express Passenger Trains, Fast Freight Trains Throughout.	MISSOURI	ILLINOIS

which comprise a territory full of natural resources and advantages. This railway is geographically well located in relation to the great markets and distributing centers. Beyond its lines is a vast and rapidly developing territory extending to the Pacific Coast.

The Company gives unremitting attention to the development of local traffic along its lines and, with this in view, seeks to increase the number of manufacturing plants on its system, either through their creation by local enterprise or the influx of manufacturers from the east. It has all its territory districted in relation to resources, adaptability and advantages for manufacturing. Specific information furnished manufacturers in regard to suitable locations. Address,

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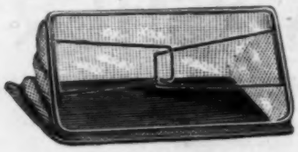
Prices quoted on application. Send for our Catalogue C.



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In quality and price are the **Forest City Paints.** It has paid other dealers to handle them, why not you? Let us quote you?

THE FOREST CITY PAINT & VARNISH CO.

CLEVELAND, O.

Ask for the Hanger with the Green Wheel.

Secure the Agency

at once by Writing Us to-day

Wagner Adjustable Never-Jump Barn Door Hanger

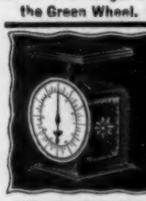
with steel roller bearings. Can't jump the track. Adjuste to any size track. Grooved spool so constructed as to permit the door to swing out slightly, thereby breaking the force of a sudden blow, as weight of door will bring itself back into place again without injury to the door, hanger or track.

Packed one pair in box; steel wheels are finished in bright and attractive green oven baked japan, making it the most attractive hanger on the market. The only hanger of its kind; quick seller; big profits.

C. S. SMITH MFG. CO., Works, Milwaukee, Wis.

Address Sales Agents,

WAGNER & MARSHALL, 40 Dearborn St., Chicago, Ill



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BUY OF YOUR JOBBER. INSIST UPON GETTING THE PELOUZE MAKE

Nº E 90 AS SHOWN 24 Lbs.
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Nº D2 ½ BRASS DIAL, TILE TOP.

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GENUINE PHILADELPHIA LAWN MOWERS

MADE ONLY BY

The Philadelphia Lawn Mower Co.

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Send for Illustrated Catalogue.

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IMPROVED NATURAL STONE GERM PROOF

WATER FILTERS

Prevent Zymotic Diseases by pushing sale of these goods in your locality.

EVERY FILTER IS GUARANTEED TO BE ABSOLUTELY GERM PROOF.

EVERY FILTER IS A PERFECT FILTER WHEN IT LEAVES OUR FACTORY.

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The "Weber Junior" Pumper

Is all complete, ready to attach to pump. Equals 30 man pumping power. Uses but little gasoline. Is shipped crated completely erected, all connections made. Easy to start, any one can operate it. Every one guaranteed. Other sizes up to 50 H. P. Send for catalog.

Can also be used for other power purposes.

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HENRY SEARS & SON 1865 WARRANTED

QUEEN RAZORS

THE ORIGINAL HENRY SEARS & SON, 1865.

EASY TO SELL. ALWAYS SATISFACTORY

YOU WILL FIND THEM READY FOR WORK.

FARWELL, OZMUN, KIRK & CO.,—St. Paul.

SOLE DISTRIBUTORS.

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GALVANIZED WARE

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Are there Mail Boxes in use on the routes around your town?
Of course?
Well, why don't you have a hand in the game?
Get after it with a box that pays you a ***Good Profit*** and one you can afford to push.

SUCH IS **"Uncle Sam's"**

It retails easily at $2.00.

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Round Shape is the Strongest.

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Rural Mail Box

Best and Cheapest. Adopted by the U. S. Government.

Price $1.00. Dis. to the Trade.

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Three trains Chicago to San Francisco and Los Angeles every day via

THE NORTH WESTERN LINE

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No. 12—RATCHET, WITH STUB BLADE

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THEY ARE SOLD BY LEADING JOBBERS.

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LATEST IMPROVED

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Every Dehorner Guaranteed

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"The Standard Thermometer Is a great improvement in range doors."

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Equip Your Range Doors Now and keep IN LINE of march.

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TO THE WINTER RESORTS OF **Texas, Mexico** AND **California**

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ARE INDESTRUCTIBLE!

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in a single day is the record of the

NEW IDEA FLY TRAP

NEW IDEA FLY TRAP CO.
CISSNA PARK, ILL.

ONCE TRIED, ALWAYS USED.

THE BAR-KEEPER'S "FRIEND"

FOR CLEANING, CLEANSING AND POLISHING
BAR FIXTURES, DRAIN BOARDS AND ALL Tin, Zinc, Brass, Copper, Nickel and all Kitchen and Plated Utensils. Glass, Wood, Marble, Porcelain, Etc.

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Marble, Glass, Nickel, Brass, Copper, Tin and German Silver can all be cleaned and polished with it easier than with anything else.

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FOR SALE BY JOBBING TRADE.

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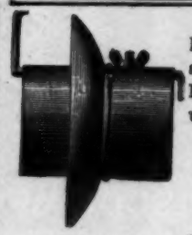
The HAYLOR HOLD FAST STOVE PIPE



The problem of holding stove pipe securely in the flue hole is solved by using

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Pat. Nov. 20, 1900. Therefore the demand.

A Fast, Ready Seller on Account of its Merits : :

Made of the best of materials, both Woods smooth and Planished No. 26 gauge iron. The Haylor Hold Fast Stove Pipe is 9¼-in. long, fitted with fastening device, and beautifully designed, gilded collar, which measures 10½in. in diameter for six inch pipe and 11¾-in. for seven inch pipe. Packed half dozen complete, pipe, collar and fastening device to the crate.

Dealers do not pay for the support of our traveling men. We have none. Write for catalogue and prices.

STUBER & KUCK.
Manufacturers of Pieced Tinware and Specialties,
PEORIA, ILL.

THE FRED. J. SWAINE CO.

PRESSES. DIES.

Rolls Seamers. Sheet Metal Tools.

1301 / 1309 N. 7th St. Louis, Mo.

Sausage Stuffer, Lard and Fruit Press with Patented Corrugated Spout

8 Sizes and Styles

Meat Juice Extractor

No. 21 $2.50

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No. 750 $8.50

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ENTERPRISE

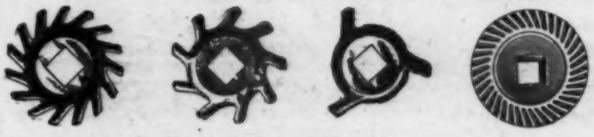
Food Choppers

TINNED

No. 100 *chops 2 lbs. of Meat per minute* $1.50
No. 300 *chops 3 lbs. of Meat per minute* $2 25

Four Knives with each Machine

Fine Medium Coarse Nut Butter Cutter



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Rapid Grinding and Pulverizing Mills

40 Sizes & Styles for Hand, Steam & Electric Power

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You don't wait. An hour after we open your letter, the shipping department is boxing up your goods. It is easy for us to be speedy—our line is the greatest and most complete in the world—we don't need to lose time—we couldn't give you an excuse for doing so. Ordering Enameled Steelware and Tinware from us is the least of a wise merchant's troubles. Write to nearest office for catalogues and prices.

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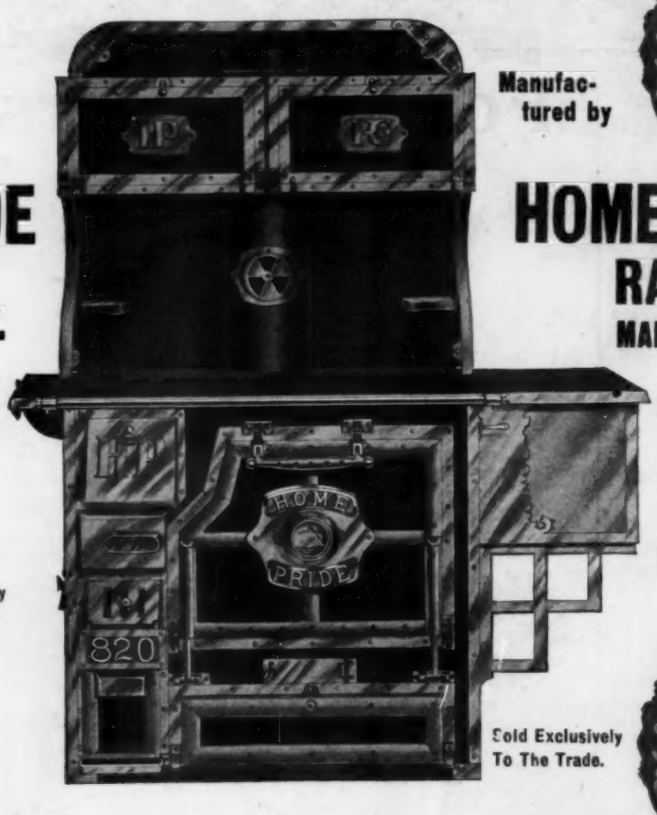
NATIONAL ENAMELING & STAMPING CO.

HOME PRIDE
MALLEABLE STEEL RANGES.

HEAVY BLUE AND BLACK STEEL.

Eighteen and Twenty Inch Ovens

Sold Exclusively To The Trade.



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RANGE CO.
MARION, IND.

LEFT AND RIGHT HAND FLUSH RESERVOIRS

Heaviest and Best Material Used

Sold Exclusively To The Trade.

HARDWARE
CUTLERY

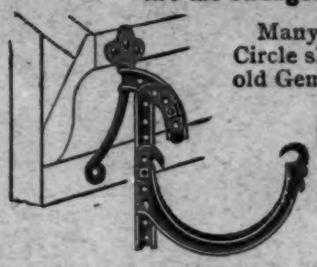
BICYCLES
SPORTING GOODS

GUNS
RIFLES

TINPLATE
AMMUNITION

BERGER'S { GUTTER HANGERS

Are the Strongest, Neatest and Handiest made



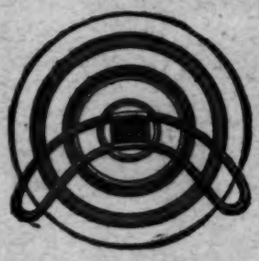
Many styles to suit any building. The Royal Circle shown herewith is an improvement on the old Gem Circle. Send for free samples.

BERGER BROS. CO.

OFFICE AND STORE, 237 Arch Street
WAREROOMS, 100-02-04 Bread Street
FACTORY, 3114-16-18-20 N. 17th Street

PHILADELPHIA

THE Peerless Flue Stopper



Steel wire springs instead of sheet iron stays.
Stays where you put it, and is absolutely soot and smoke proof.
Made either plain or decorated.
Send for miniature sample and prices.

Welling Manufacturing Co.,
COLUMBUS, O.

OUR SYSTEM

enables us to handle mail orders with a facility that has given us a deserved reputation in this line. We are wholesalers of shelf hardware, house and bank trimmings, "Cutler's Easy" tools and cutlery.

CUTLER HARDWARE CO.
WATERLOO, IOWA.

Sperry's Steam Kettles.

Made from very thick metal, without Stay Bolts, Joint packed in such a manner as to never need repacking. A little higher-priced than some, but they are safe and tight.

D. R. SPERRY & CO.,
HOLLOW-WARE FOUNDERS,
.....BATAVIA, ILL.

American Family Scale.

BEST IN THE WORLD.

It is made of STEEL, TIN or BRASS Scoop Top.

A most beautiful and attractive scale for all purposes. Beautifully enameled, ornamented and striped. Weighs 20 pounds by ounces. Occupies but little space. Is light and easily moved. It can be regulated by turning the brass screw on top. It is always ready and easily understood. It is a convenient scale to use, and has no weights that may be lost. You can look this one in the face to prove its accuracy without looking for weights. Every scale examined before leaving the factory and warranted correct.

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AMERICAN CUTLERY CO.
CHICAGO, ILLINOIS.

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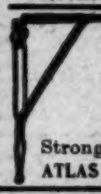

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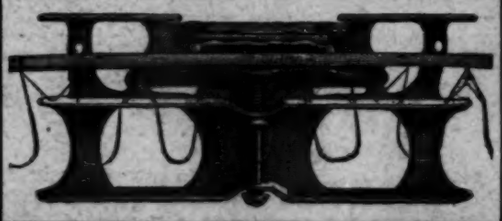

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